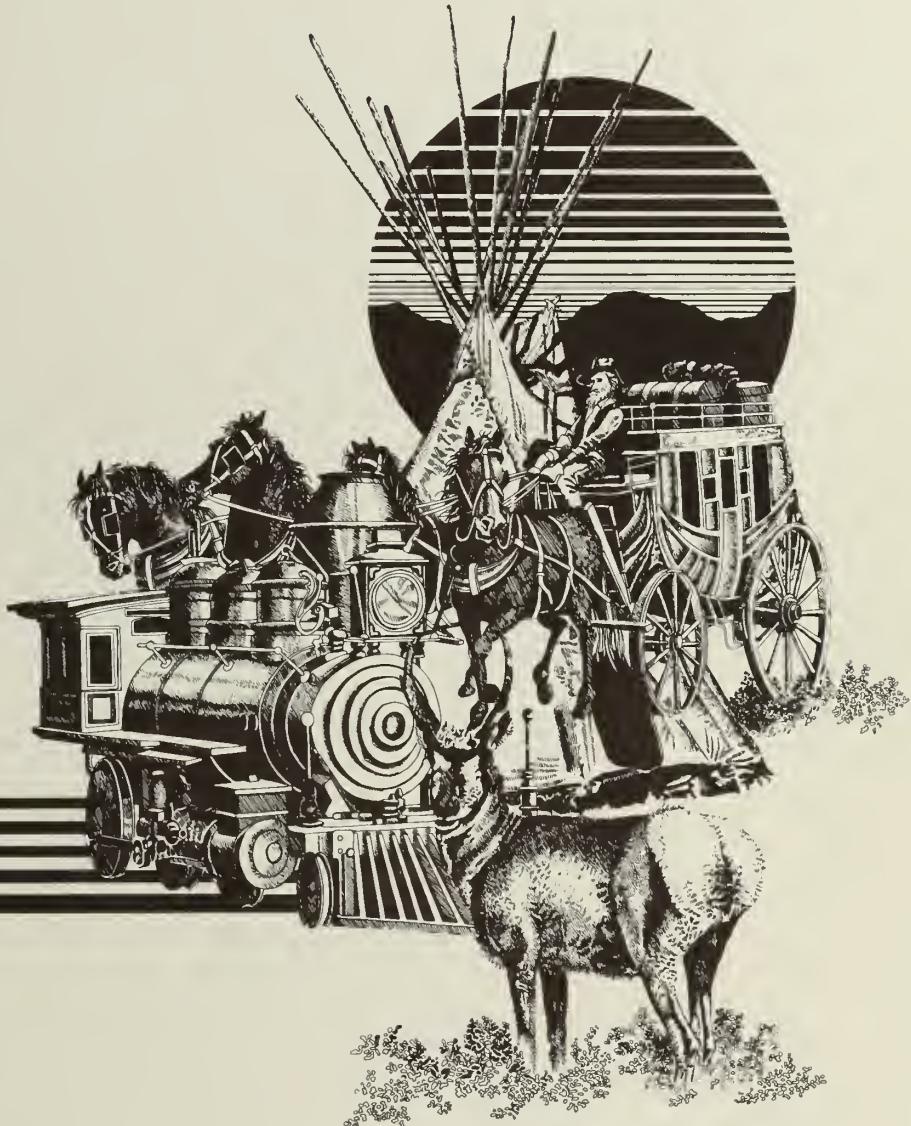




Historic Investigations of the **Bear River Divide** Segment of the Oregon Trail



By A. Dudley Gardner
William R. Snell
David E. Johnson

Bureau of Land Management
Wyoming

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FOREWORD

The Bear River Divide in southwestern Wyoming has been the locus of Euro-American interests since the 1820's. Mountain men knew the area as one rich in beaver, whose pelts supported the colorful Rendezvous Era of 1820-40. Indeed place names such as Bridger Butte and the Smith's Fork are derived from these early trappers. The mountain men blazed the trail for the great Westward Expansion and immigrants followed routes through the Bear River Divide first identified by trappers such as Jim Bridger decades earlier. American settlement began in the 1880's as ranching operations became established on the flanks of the Bear River Divide. Coal was discovered in the region around the turn of the century and supported towns such as Kemmerer and Cumberland. Petroleum exploration soon followed, and with plentiful supplies of coal, oil, and gas, the Bear River Divide provided a livelihood for the region's inhabitants that endures today.

Development of the Bear River Divide's rich natural resources often competes with the desire to preserve vestiges of the area's earlier history. For example, Exxon Company USA's Road Hollow Natural Gas unit, which derived its name from an immigrant trail route of passage, is located in an area of significant and abundant Oregon Trail remains. Because the Bureau of Land Management must provide for the dual mission of historic preservation and meeting the energy needs of our Nation, a comprehensive study of the Oregon Trail in the Bear River Divide became essential. In 1982 Frank Clark, then of Exxon, and Dave Vlcek, recognized this need and organized this study. We trust our efforts, and the signal accomplishments of this volume's authors, prove useful to future generations of Americans.

The Bureau of Land Management is very proud to present Monograph Number 5 in its continuing cultural resource publication series. This monograph, "Historic Investigations of the Bear River Divide Segment of the Oregon Trail," represents a departure from our previous publications in its historic trail orientation. It is our hope that the scholar and dilettante alike will appreciate the work that went into the Bear River Divide study and benefit from the reading of the publication.

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Several people are owed thanks for their assistance in completing this project. Dave Johnson, Dr. William Snell, Steven D. Creasman, and Verla Flores' efforts were responsible for producing and editing this report. Kevin Thompson, Ted Hoefer, and Craig Smith assisted this effort by providing timely comments and helped generate useful ideas. Thanks is also owed to Exxon Company, U.S.A., who provided invaluable assistance in generating this report. Carol Howard-Carter and Debbie Braithwaite spent long hours typing and producing this manuscript. Sharon Dolan illustrated the front cover and aided in producing this report.

Invaluable assistance was provided by Dave Vlcek of the Bureau of Land Management. His patience and commitment to generating a comprehensive document led to the production of this report. His efforts and forebearance are greatly appreciated.

A. Dudley Gardner

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CHAPTER I

INTRODUCTION

Introduction

Under contract to Exxon Company, U.S.A., Archaeological Services of Western Wyoming College (AS-WWC) conducted a comprehensive study of the Emigrant/Oregon Trail in Exxon's Road Hollow Unit. The purpose of the study is to provide Exxon and the Bureau of Land Management (BLM) accurate data on the routes of the trail within this developing natural gas field. Such a study had not previously been undertaken, which created a number of problems in planning the various construction projects associated with the development, extraction, and transportation of the gas resources on the Bear River Divide.

In order to provide Exxon and the Bureau of Land Management with information regarding the exact location of trail routes, a field survey and historical document research was initiated. The Oregon Trail has been deemed eligible for nomination to the National Register of Historic Places (NRHP). One of the priorities of a recent trails management plan is to document what routes were used to cross the Bear River Divide (BLM 1986:30). The intent of this study is to document the integrity and location of this significant cultural resource.

Fieldwork for this project encompassed three field seasons. In September of 1984 the trail in the lower reaches of Chicken Creek was inventoried. The entire Road Hollow Unit was surveyed for remnants of the Oregon Trail in May, June, and July of 1985. This effort was not continuous but spanned a three-month period. In May 1986 an additional area was inventoried along Collett Creek in association with Exxon's Road Hollow Well 13. Then in August of 1986 the top of Bear River Divide was reexamined in association with Exxon's pipeline lateral from Road Hollow 12 to Road Hollow 4. The Bear River Divide trail study was assigned an inhouse project number of 85-WWC-32, and 86-WWC-23 was assigned for the trail study along Collett Creek. The field crew for these inventories included David Johnson, Patrick Bower, Marilyn Christiansen, and William Snell. Verla Flores served as the editor for this effort. The project manager for the Bear River Divide trail study was A. Dudley Gardner. The project was conducted under the direct supervision of Steven D. Creasman, Principal Investigator. Because of the time involved in conducting this project, it was performed under two different federal permits. Specifically, the project was conducted under Federal Antiquities Permit No. 82-WY-259 and Special Use Permit No. 010-WY-C085.

Location and Environment

The Bear River Divide is found on the extreme southwestern edge of Wyoming (Figure 1). Located in the Overthrust Belt, the Bear River Divide separates waters flowing westward to the Bear River and those flowing eastward to the Green River. The ridge system that makes up the Bear River Divide is relatively well watered and has numerous streams flowing from springs and seeps found throughout the area. Because of the elevation (ca. 7000 ft) and the fact that the divide is well watered, stands of aspen trees and conifers are found in several areas. However, the dominant vegetation is sagebrush and grasses, with aspen groves and juniper stands spread throughout the area. This well watered divide provided good forage for the animals of the emigrants and elicited several nineteenth century diary entries about this area. From

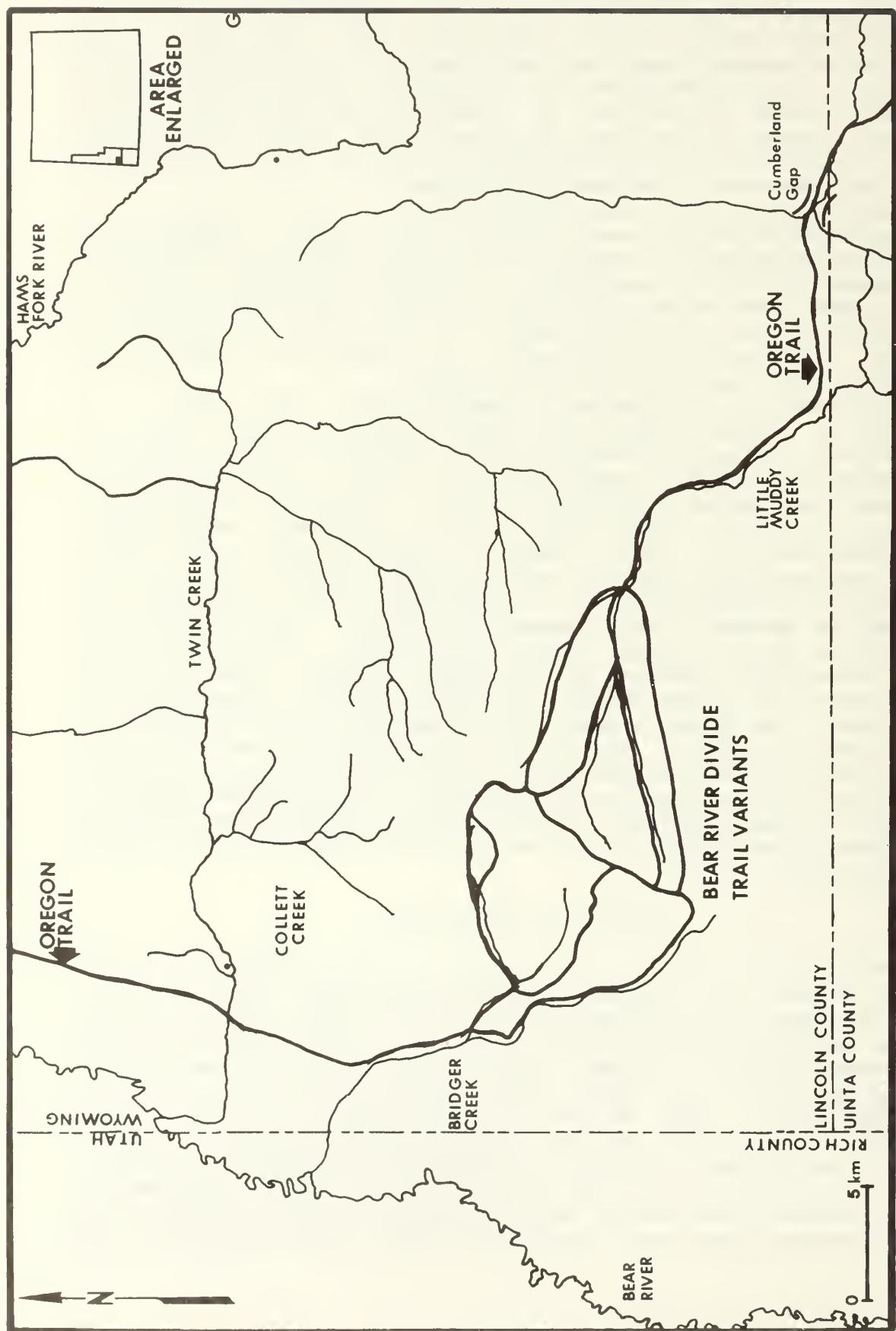


Figure 1. Map showing the Oregon Trail variants in the Bear River Divide area of southwestern Wyoming.

the crest of this ridge the traveler was able to view the Uinta Mountains, the Wind River Mountains, and the green valley of the Bear River. This spectacular view was not lost on the emigrants who often commented on the scenery in their diaries.

In crossing this divide the early emigrants were not faced with any severe obstacles. In ascending the divide from the east, the traveler could follow relatively level valleys. By following Muddy Creek to Little Muddy Creek, Road Hollow Creek, or Chicken Creek, the emigrant could easily climb the Bear River Divide. The westward descent was steeper, but it was not necessary to lower the wagons by ropes; locking the wheels was adequate. By descending along Bridger Creek to Spring Creek and the Bear River Valley, no major obstacles were encountered.

Exxon's Road Hollow Unit straddles the Bear River Divide. The Oregon Trail crosses through the southern and western edges of the unit boundaries (Figure 2). It is within the boundaries of this well field that we centered our efforts. Initially the area of emphasis centered around T19N, R118W; T19N, R119W; T20N, R118W; and T20N, R119W (Table 1). To provide adequate information on the trail's route over the Bear River Divide, areas outside the Road Hollow Unit were also checked for trail remains. The areas outside the well field were not intensively inventoried; however, the area inside the unit boundary was. The routes of the trail outside the well field were verified to assist in determining the starting and ending points of the various alternates and cutoffs. This area is also shown in Table 1.

Summary of Previous Work in the Area

In association with energy development in the Overthrust Belt and as part of the documentation of the Oregon Trail, several studies and cultural resource inventories have been conducted along the Bear River Divide. The inventories associated with energy development in the area have focused on isolated segments of the trail. A National Park Service survey (1981) focused on the trails' main routes but did not document intact trail remains. Another inventory conducted in the area in 1981 by the Idaho Historical Society (IHS) focused on spot surveys of different areas along the Bear River Divide. They did not, however, intensively survey the area. All of the inventories previously conducted in this area have their strengths, but none have been comprehensive.

One of the earliest studies that dealt with the route of the Oregon Trail over the Bear River Divide was conducted by the National Park Service (1981). This study, entitled Comprehensive Management and Use Plan, Oregon National Historic Trail, recommended that the BLM "adopt regulations as necessary to best protect" this segment of the Oregon Trail (National Park Service 1981, Appendix III:227). According to the maps generated as part of this inventory:

The "Primary Route" of the Oregon Trail followed Little Muddy Creek westward to the mouth of Chicken Creek in the NW $\frac{1}{4}$ of Section 4, T19N, R118W. It then followed Chicken Creek to Road Hollow which it followed to the top of the Bear River Divide. From there it approximated the route of the existing two-track northward along the top of the divide to the concrete trail marker in the NW $\frac{1}{4}$ of Section 22 [T20N, R119W].

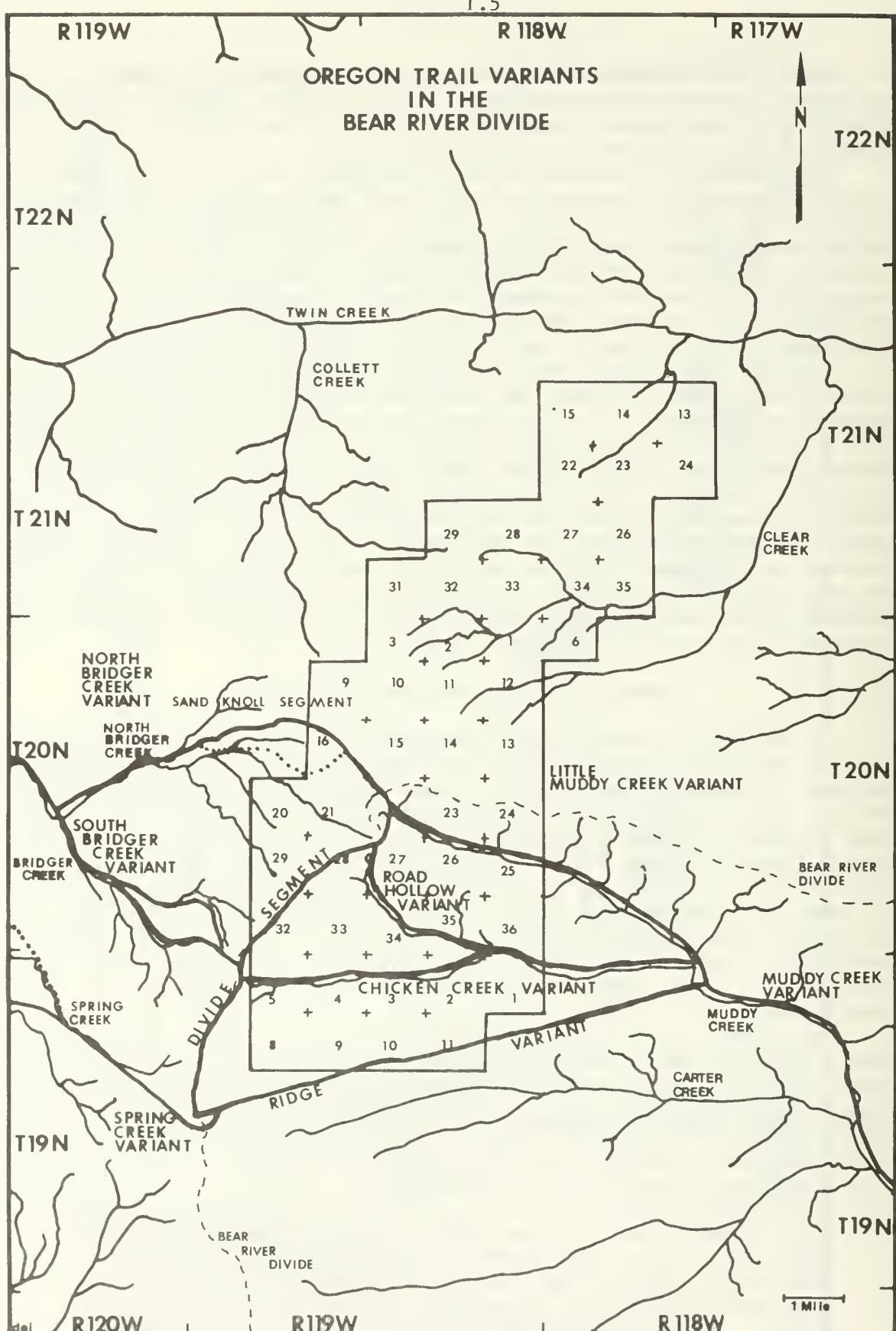


Figure 2. Map showing the Oregon Trail crossing through the southern and western edges of the unit boundaries. The various routes of the Chicken Creek, Road Hollow, Little Muddy, Divide Segment, North Bridger Creek and South Bridger Creek are felt to be the major routes up and over the Bear River Divide.

Table 1. Area checked for trail remains in and around the Road Hollow Unit, Uinta and Lincoln counties, Wyoming.

Township and Range	Sections	USGS Quad	Sections within Road Hollow Unit	Sections in Road Hollow Unit (by section)	Trail Remains in Road Hollow Unit	Sections Checked outside Road Hollow Unit	Trail Remains outside Road Hollow Unit (in sections)
T18N, R117W	3, 4, 5, 9, 10	Elko SW	None	None	A11	A11	
T19N, R117W	19, 30, 31, 32	Elko SW	None	None	A11	A11	
T19N, R118W	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 24	Elko SW & Warfield Creek	None	None	A11	A11	
T19N, R119W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 18	Bell Butte NE & Windy Point	1, 2, 3, 4, 5, 8, 9, 10, 11	1, 2, 3, 8, 9, 10, 11	6, 7, 12, 18	6, 7, 12, 18	
T19N, R120W	3, 4, 10, 11, 13	Windy Point	None	None	A11	A11	
T20N, R118W	6, 29, 30, 32, 33	Bell Butte NE	6	None	29, 30, 32, 33	29, 30, 32, 33	
T20N, R119W	1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	Bell Butte NE & Windy Point	1, 2, 3, 9, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36	9, 16, 21, 22, 23, 25, 26, 27, 28, 29, 32, 34, 35, 36	4, 7, 8, 17, 18, 30, 31	4, 7, 8, 17, 18, 30, 31	
T20N, R120W	9, 13, 14, 15, 16, 22, 23, 25, 26, 35, 36	Windy Point	None	None	A11	A11	
T21N, R118W	13, 14, 15, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 34, 35	Sage	A11	None	None	None	
T21N, R119W	23, 26, 35, 36	Sage	None	None	A11	A11	

The primary route diverges from the existing road by going directly north in the west half of Section 22, thereby cutting off the curve in the existing road which swings into Section 21. The Park Service maps then depict actual "ruts" descending the north side of the divide below the marker. These maps also show an "Alternate Route" which follows the Little Muddy drainages from the NW $\frac{1}{4}$ of Section 4, T19N, R118W northwesterly to the head of the drainage as far as the trail marker in the NW $\frac{1}{4}$ of Section 22, T20N, R119W. Another alternate route followed the existing road across the northern half of Section 22 eastward to the SW $\frac{1}{4}$ of Section 14 [T20N, R119W]. It then followed another two-track road westward down the west side of the divide to reach the same point as the primary ruts in the SE $\frac{1}{4}$ of Section 16 [(T20N, R119W) Rosenberg 1985:3-4; National Park Service 1981; Appendix II Sheets 187-192].

In 1981 the Idaho Historical Society conducted an inventory of the trail from Fort Casper, Wyoming, to Fort Boise, Idaho. As part of this effort, they conducted a partial inventory of the trail over the Bear River Divide. In discussing their findings, they described the trail as it is depicted on current United States Geological Survey (USGS) maps. Of particular interest to this study is their description of the trail on Warfield Creek, Bell Butte NE, and Windy Point 7.5 minute series USGS maps (IHS 1981:67-69). Also of interest is the trail discussion for the Sage Creek 15 minute series USGS map (IHS 1981:72).

According to the IHS study, the Oregon Trail ascended Little Muddy Creek to its head. The report goes on to state:

The approach to the Bear River Divide is marked by rugged and eroded terrain, and the route of the Oregon Trail is somewhat confused. According to Oregon Trail diarists, they ascended Muddy Creek to its head and camped by a spring on the left of the road near the Divide

Paul Henderson believes the emigrants ascended Chicken Creek and Road Hollow to cross the [Bear River] Divide. This route seems improbable as the emigrants would have had to negotiate nearly vertical cliffs and none of the diaries examined indicate the travelers accomplished such feats . . . (IHS 1981:276).

The IHS goes on to note that "intensive survey has not yet commenced in this area" (Ibid.) This is fairly evident since the Road Hollow ascent is actually fairly smooth and poses few difficulties for the overland traveler. Currently the Road Hollow Variant exhibits Oregon Trail markers along its length.

The descent from the Bear River Divide, according to the IHS survey, followed two possible alternates. They described these alternates as northern and southern variants. In describing the descent they noted:

A northern variant passes down a canyon north and west of Sand Knoll and then connects with the southern route on Bridger

Creek. A southern variant travels down North Bridger Creek. It then follows down the creek and joins with the north route. The diary descriptions of the route traveled by the emigrants appear to describe both of the proposed alternates A route that leads north, east of Sand Knoll, could have received some later traffic, but none of the diaries examined indicate any early traffic traveling this route (IHS 1981:69).

Currently erosion has obscured some of the trail remnants along Bridger Creek, but these variants are still evident. In fact, in some areas the ruts along this desert route exhibit excellent integrity.

One of the areas of confusion raised by the IHS report is the presence of a trail route along Collett Creek. Apparently they felt the trail turned north at the head of Little Muddy Creek. At this point they contend the trail continued north until it crossed Fossil Ridge, north of the Bear River Divide. The trail then descended Collett Creek to Twin Creek before turning west to the Bear River. In describing this route IHS states:

A possible Oregon Trail north variant parallels Collett Creek to Twin Creek. It then climbs to the head of Antelope Creek before descending into Bear River Valley. The majority of this route traverses pristine rangeland. Two other routes are evident between Gooseberry Spring and Antelope Creek. The main route of the Oregon Trail crosses Twin Creek near Leefe and heads north down Bear River Valley . . . (IHS 1981:72).

Unfortunately the IHS report does not cite any references for this variant nor differentiate between possible ranch roads and trail remnants. Interestingly, the National Park Service (1981; Appendix II Sheet 187-192) does not show a variant following Collett Creek.

In 1985 Robert Rosenberg conducted a historical survey of the Bear River Divide for Champlin Petroleum (Rosenberg 1986). His inventory was limited to the ridge crest itself and did not cover the areas east and west of the divide. He did, however, provide an excellent description of the Government Land Office Survey Plats (GLOs) for the Bear River Divide. Originally the GLOs were produced to provide accurate details of local topography and legal locations to assist homesteaders and miners in establishing claims to their property and leases for mineral exploration. In most cases they were the first attempts at mapping physical features of an area. They also attempted to document historical trail remains for each area surveyed and are excellent sources of information. The GLO maps for the Bear River Divide give some of the earliest information about the Oregon Trail Route over this ridge. In his report Rosenberg states:

For Township 20 North, Range 119 West, the survey was conducted by J. E. Woods in 1880 and approved in 1881. The plat did not show any roads in the entire township and drainages were not named. Wood's field notes failed to shed any light on existing roads The resurvey was conducted by Newell J. Burnham in 1909 and approved in 1911. Even at this late date, very little development or settlement had

taken place in the township, but several roads were noted. Burnham's field survey notes, which listed any roads that were crossed while running the section lines, were also examined. A road is depicted as following Road Hollow, which is called "Chicken Creek" on the plat. This road merges with a second road running along the top of the Bear River Divide The road continues past the Oregon Trail marker in the NW $\frac{1}{4}$ of Section 22 and curves eastward, then westward, and descends into the Bear River drainage as currently depicted on the Bell Butte NE quadrangle in Sections 14 and 15. The plat also shows the branch road which diverges in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 22 and then runs eastward along the top of the divide The plat does not show any road following the Little Muddy drainage, nor does it show a road where the wagons descended on the north side of the divide [along Bridger Creek or west along the ridge to Sand Knoll].

The original survey GLO plat for Township 20N-Range 118W was not available. The resurvey was conducted by Johnson and Voight in 1909 and approved in 1911. It shows that the east-west road along the top of the Bear River Divide continued eastward through Sections 19, 20, and 29 Secondly, a road up the north side of the Muddy Creek drainage is shown which ends in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 30.

The original GLO survey plat for Township 19N-R118W was not available. The resurvey was conducted by Johnson and Voight in 1909 and approved in 1911. Little Muddy Creek is called Chicken Creek, and a road is shown running along the north drainages, which is called Chicken Creek on the current USGS quadrangle (Bell Butte NE). The road forks in Section 6, indicating that the northerly route follows Road Hollow and the southerly route Chicken Creek.

Because the GLO surveys are the earliest accurate information concerning the location of historic trails, the lack of the original GLO survey plats and those which did not depict roads in the study area is a major omission in data. Certainly the resurveys show a road system in the area that existed as early as 1909 and which is very similar to the current road pattern nearly 75 years later. They tend to reinforce the existence of three main variants of the Oregon Trail: the Little Muddy drainage, Road Hollow, and Chicken Creek. All three east-west routes are connected by a road running along the top of the Bear River Divide which could have acted as a feeder to routes down the west and north side of the Divide (Rosenberg 1985:2-3).

Rosenberg's description of what the GLO maps contained is excellent given the number of ranch roads present in the area in the 1880s and early 1900s. One of the principal sources of confusion is these ranch roads. Often ranchers simply used existing trails to move their herds. However, they also made new roads to accommodate their needs. The surveyors for the Government Land Office often did not distinguish which of the roads were ranch roads and which were historic trails. In fact, by 1909 it was probably difficult to tell the difference.

As an outgrowth of Rosenberg's 1985 efforts, the Kemmerer Resource Area BLM offices produced a "Section 106 Compliance" report. This report summarized previous efforts in the area by concluding:

One general land management scenario is emerging. Verifiable trail segments possessing identifiable trail ruts are repeatedly identified in the major drainage bottoms in the area, specifically the Little Muddy Creek, Road Hollow, and Chicken Creek bottoms. Pristine (and fragile) trail remains have been identified on the steep slopes associated with the heads of these drainages, especially north and west of the Bear River Divide proper. The bottoms and steep slopes are not well suited for placement of energy development access roads, drill pads, and the like. It appears reasonable, practical, and in conformity to a concept of multiple use of the public lands to generally designate surface disturbance associated with well pads for the ridgetops, and to discourage any disturbances in the bottoms or slopes in the drainage valleys linked with emigrant passage. This guideline reduces the visual intrusion resulting from energy development construction by restricting it to the higher terrain (which is better suited for modern access road construction), and aids in maintaining the natural setting of the valley bottoms to the extent allowable in the energy impacted Bear River Divide (Vlcek 1985:6).

In the fall of 1986 a comprehensive management plan was produced by the Department of the Interior (DOI). This study was implemented by the Wyoming BLM and states:

The Bear River Divide segment of the Oregon Trail is one of the more difficult segments to describe in that there appears to have been several segments, routes, and variants allowing wagon passage over this divide. At present, the main route of the Oregon Trail is recognized as abandoning the Little Muddy and ascending first Chicken Creek, then present day Road Hollow Creek. After cresting the Bear River Divide, the trail goes west past Sand Knoll and drops down to North Bridger Creek. Two miles later, North Bridger Creek unites with Bridger Creek and the trail follows the north and east side of this creek as it courses northwest towards the Bear River Valley (DOI 1986:30).

According to the DOI, Oregon Trail variants east of the Bear River Divide include:

1. A variant that follows the headwaters of Chicken Creek directly to Bridger Creek;
2. An alternate route that follows the Little Muddy Creek to the Bear River Divide; and
3. A possible variant that leaves the Little Muddy Creek variant and runs along Fossil Ridge - really a three-mile

long switchback - that unites the main trail .5 mile north of Cercocapia Reservoir (Ibid).

Several variants were also identified by the DOI on the western side of the Bear River Divide:

1. A poorly understood trail segment associated with the headwaters of Spring Creek;
2. Two trail segments located near the head of Bridger Creek. These routes are the western extension of the Chicken Creek Trail and contain well-preserved trail ruts;
3. Three short (1 to 1.5 miles in length) alternates descending the Divide near Cercocapia Reservoir that lead to the North Bridger Creek Main Trail;
4. A variant branching off the Main Trail north of Sand Knoll that follows an unnamed creek for five miles north and then unites with the Bridger Creek Main Route near where the creek enters the Bear River Valley; and
5. Finally, a possible variant, largely deviating from those routes described above, merits discussion. Reference to this variant is found in the Oregon Trail Cultural Resource Study prepared by the Idaho State Historical Society (1981, p. 277, 280). The route leaves the main trail about two miles east of Sand Knoll and runs north for about seven miles along the eastern uplands of Collette Creek (DOI 1986:30).

The energy development in the Bear River Divide area necessitates a comprehensive management plan to insure avoidance and protection of intact segments of the Oregon Trail. In order to develop this plan, the variants along the Bear River Divide need first to be identified.

Methodology

In order to identify the trail remnants present in the Bear River Divide, three methods were used. The first involved consulting historical archives. These sources included maps, original trail diaries, and other historical documents. The second method involved the use of aerial photographs to isolate potential areas with trail remnants. Third, the physical trail remains were examined in the field. Efforts centered around the Road Hollow Unit but also extended east and west along the length of the trail from Muddy Gap to the Bear River. However, the pedestrian survey was confined to the areas within and immediately adjacent to the Road Hollow Unit.

Archival research was conducted at various known depositories of historical journals and diaries. These diaries are actual accounts by the travelers who followed the Oregon Trail over the Bear River Divide in the mid 1800s. Among the libraries and special collections consulted and visited were the Huntington Library San Marino, California, the

Bancroft Library, the Oregon State Historical Society, Washington State University, the University of Wyoming, the University of Utah, the Latter Day Saint Archives in Salt Lake City, the Denver Public Library, and the U.S. Geological Survey Archives. In addition, Government Land Office survey maps and historical United States Geological Survey maps for the area were consulted.

The actual documentation of the trail was carried out in six phases that spanned a two-year period. These phases were (1) research of GLOs and BLM base maps, (2) initial field survey, (3) diary and journal research, (4) historic map research, (5) study of aerial photographs, and (6) actual pedestrian inventory. The field survey was conducted to verify the historical documentation and suspected trail features found on the aerial photographs.

The methodology used to survey the trail varied. Outside the Road Hollow Unit the trail was inventoried by driving the trail and spot checking the condition of the ruts and swales. Within the Road Hollow Unit and the area directly adjacent to the well field, all segments of the trail that exhibited physical trail remnants were walked. A pedestrian survey of portions of the Collett Creek Variant was also undertaken. In addition, all purported trail remains found on BLM base maps, GLO maps, and those identified by previous studies in the area were inspected. Within the Road Hollow Unit all trail routes were walked, and impacted areas were checked for possible remnants adjacent to the new roads or erosional surfaces.

In conducting the survey, a historian walked each trail variant. This ensured each trail remnant was checked for physical remains and integrity. Where two-track roads were shown on the GLOs, these roads were driven. If it appeared they might be trail remains, a pedestrian survey was then conducted. By doing this, all of the purported trails and historic ranch roads that were possibly associated with the Oregon Trail within the Road Hollow Unit were inventoried.

In summary, determining where the Oregon Trail crosses the Bear River Divide is the result of three distinct efforts. First, diaries and journals served as the basis for determining where the emigrants crossed the Bear River Divide. Second, the historic maps were consulted, with their varying degrees of accuracy, to show where the trail crossed the divide. Third, the actual field survey verified where physical remains of the trail are currently located and whether they possess intact remnants exhibiting integrity of setting and place. The results of these efforts are detailed in the Historical Overview and Results sections of this report.

CHAPTER II

HISTORIC OVERVIEW

Written Historical Accounts

Introduction

The Oregon Trail has captured the imagination of writers for over one hundred years. Shortly after its inception, the young Harvard graduate and budding historian Francis Parkman wrote his classic, The Oregon Trail. His work dealt with the overland migration in 1846 and even though he focused on the Indians and only mentioned the overland emigrants, his work captured the interest of the nation (Parkman 1927). By the twentieth century, historians and novelists were producing a variety of publications dealing with the overland trails. Using diaries and journals written in the mid-1800s, they produced volumes of works romanticizing the westward migration. John D. Unruh in his historical work The Plains Across gives an accurate description of historic books written about the Oregon Trail. Focusing on the overland migration to Oregon, Washington, Utah, and California, his exhaustive bibliography points out how much original material is available and also how many works have been published about the Oregon Trail (Unruh 1979).

Because of the Oregon Trail's significance in American history, recent efforts have concentrated on saving trail remains. This conservation of trail remains has resulted in the publication of books and technical reports that document the various routes and the numerous variants used by the emigrants traveling west in the nineteenth century. As a result of conservation efforts mandated by federal legislation, several historic overviews and management plans dealing with the Oregon Trail have been written. For example, the Oregon/Mormon Pioneer National Historic Trails Management Plan provides an excellent historical overview describing the significance of the trail to national, regional, and local history (National Park Service 1981). In spite of all the work generated in the last few years, there are still several portions of the trail that have not been clearly defined. One such area is the Bear River Divide in southwestern Wyoming.

The Oregon Trail crosses the Bear River Divide between Fort Bridger in Wyoming and Fort Hall in Idaho. Located along the western boundary of Wyoming, the Bear River Divide acts as a barrier between the Great Basin and the Colorado River drainage system. As the emigrants approached the Bear River Divide, they had several options. These choices permitted the traveler to choose between three routes east of the divide and two different means of descending the hills to reach the Bear River Valley to the west. Depending on where they crossed the divide, the elevation varied between 7824 and 8019 ft above sea level, but it was not a difficult crossing. The eastern ascent was gradual and, at the head of the drainages, water was readily available and grass usually plentiful. The western descent was more difficult, but when compared to other areas, the drop from the divide to the Bear River Valley was not a major obstacle to using this route.

Drawn by glowing reports of gold in California, fertile land in Oregon, and new opportunities in the Salt Lake Valley, emigrants went west along a variety of routes. The choice of routes depended on the individual and his/her final destination. In some instances, speed was the primary concern and the shortest route west was selected. This need for speed was especially pressing for the emigrants moving to California during the Gold Rush years following 1849. In other cases, people took

more indirect routes to beef up their diminishing supplies or to ensure adequate water and feed for their livestock.

In the years between 1840 and 1860, the most popular way west was over South Pass. This trail was known as the Oregon Trail but actually provided the route to both California and Oregon. The Oregon Trail consisted of numerous cutoffs and divergent points of origin. Some historians, preferring to encompass all of these cutoffs and alleviate the connotation that the trail went only to Oregon, prefer to call this the Emigrant Trail or the Central Overland Route. But this trail had the common feature of routing everyone through South Pass.

Generally speaking, the Oregon Trail originated in one of three places: Council Bluffs, Iowa; Saint Joseph, Missouri; or Independence, Missouri. From these starting points, the trails converged on the Platte River and followed either the north or south bank of this river to Fort Laramie, in present Wyoming. The trail continued along this river until it reached a point just west of the Laramie Mountains. Here it left the Platte River and continued west to South Pass. It was just west of this pass that the trail split and parties could go either to Utah, Oregon, or California, via one or more routes. This point was aptly called the "Parting of the Ways," a spot located about 20 miles west of South Pass (Jensen 1975:12). At this junction the emigrants could either choose to go south to Fort Bridger and swing north over the Bear River Divide to Fort Hall or they could take the Sublette Trail west over the Tump Range to Fort Hall. The route through Fort Bridger offered the opportunity to secure much needed supplies and was also the way to Salt Lake City. More importantly, the route through Fort Bridger had more water along the way. There were other routes west from South Pass, such as the Lander Cutoff, but the Sublette Trail and the route through Fort Bridger over the Bear River Divide proved to be the most popular roads west (see Figure 2).

The purpose of the following historic narrative is to point out various impressions of the Bear River Divide written by emigrants in hopes of determining how they crossed this mountain. Specifically, an attempt will be made to document the location of the different variants used to cross the divide. The focus of this report, then, will be the trip between Fort Bridger and Fort Hall.

From Fort Bridger to Fort Hall on the Oregon Trail

As the United States entered the 1840s, a spirit of expansionism, expressed by the term "Manifest Destiny," characterized the feelings of many Americans. After the election of 1844, Texas was annexed as a state, a war was fought with Mexico with sizable territorial acquisitions, and the boundary between the United States and Canada was established at the forty-ninth parallel. The new lands of the Southwest and the boundary settlement were a stimulus to emigrants propelled by a variety of motives. The new territories offered inexpensive and fertile land. With the improved economic conditions after the Panic of 1837, with improved farm product prices, and with the desire for land and a chance to begin over again, emigrants migrated westward in increasing numbers. Beginning slowly at first, the number of emigrants swelled when "Oregon fever" infected hundreds of restless pioneers. At the close of 1841 there were approximately 400 Americans in Oregon. Elwood Evans estimated the number of emigrants for the period from 1842 to 1846

(Young 1900:370). His figures are given in Table 2. F. G. Young provides the figures from 1846 to 1852 (Young 1900:353-354, 370). The trickle of settlers widened into a stream with the opening of the Mormon migration in 1846. By that year there were approximately 5000 American settlers south of the Columbia River. The discovery of gold in California in 1849 brought a surge of emigrants headed in that direction. The population swelled so quickly that statehood was sought in 1850. The route(s) over which these settlers travelled is commonly designated the Oregon Trail; however, it might well be called the Great Western Migration Trail because many emigrants ended up in Utah, California, or other areas.

In his book The Year of Decision, Bernard DeVoto depicts the far western experience--such a vital part of our cultural inheritance--as a personal experience. "Most of our characters are ordinary people, the unremarkable commoners of the young democracy. Their story, however, is a decisive part of a decisive turn in the history of the United States" (DeVoto 1943:4).

A possible early visitor to the Bear River Divide was the Catholic missionary Father Pierre Jean de Smet. In 1841 he visited the area in the company of Flathead Indians. In early August they reached "Bear river, which flows through a wide and beautiful valley, surrounded by lofty mountains and often intersected by inaccessible rocks" (de Smet 1905:301). On August 13 they departed "the camp from the Soda Springs," and headed in the direction of Fort Hall. Having an unreliable guide, they soon became lost. That night after wrapping himself in his blanket and using his saddle for a pillow, the good father stretched out on a rock and "immediately fell into a sound sleep." The next day, after covering a great distance, they arrived in the vicinity of Fort Hall late in the evening where they spent the night because they were unable to find their way in the dark (de Smet 1905:301).

Table 2. Emigrants to Oregon, 1842-1852 (from Young 1900:370).

Year	Number of Emigrants
1842	105 to 137
1843	875 to 1,000
1844	700
1845	3,000
1846	1,350
1847	4,000 to 5,000
1848	700
1849	400
1850	2,000
1851	1,500
1852	2,500

Father de Smet's account of the passage from the Green River to the Bear River is completely lacking in details which would indicate the exact route he took. This is surprising since he was usually a keen and thoughtful observer. He does note that it took 10 days to travel from the Green River to the Bear River (*Ibid.*) Given the length of time Father de Smet took to travel between the rivers, it is likely that he did not use one of the cutoffs but took the original Oregon Trail route passing the site on which Fort Bridger would be built some two years later and then crossing the Bear River Divide.

There are several reasons for assuming that Father de Smet crossed the Bear River Divide segment rather than using the Sublette Cutoff, the other major road to the Bear River Valley. The first reason is the length of time it took Father de Smet's party to cover the distance between the two rivers. The Sublette Cutoff was a shorter route designed to save time by traveling due west from Parting of the Ways to the Bear River. (Parting of the Ways is west of South Pass). By doing this one could avoid the longer trip southwest to Fort Bridger. Emigrants taking the Sublette Cutoff usually took between 6 and 7 days to reach the Bear River from the Parting of the Ways. The trip from South Pass to Fort Bridger and the Bear River Divide over the original Oregon Trail route took 10 to 12 traveling days. Between 3 and 5 days could be saved by taking the Sublette Cutoff. Since the Green River was some 50 miles west of South Pass and Parting of the Ways, Father de Smet's reckoning of 10 days travel between the rivers would be twice the time needed to reach the Bear River via the Sublette Cutoff, suggesting he took the southerly route over the Bear River Divide.

A second reason supporting the idea Father de Smet did not use one of the cutoffs is that there is no evidence the cutoffs were in use in 1841. It is widely believed that the first party to use the Sublette Cutoff was the Stephens-Townsend-Murphy party led by Caleb Greenwood in 1844 (Jensen 1975:50). The first firm documentary evidence for use of the Cutoff is a pair of emigrant inscriptions found at Holden Hill on the Sublette Cutoff. The first of these is "T Bonney, July 25, 1845." The second inscription is "J. C. Greer 1845 July 24th" (Jensen 1975:57-58). Diarists began to describe the cutoff in 1845 and 1846 (*Ibid.*). By 1850 the route was heavily used by forty-niners eager to reach the gold fields of California. Father de Smet's trip through the area in 1841 is some three years earlier than the earliest evidence for use of the Sublette Cutoff. This tends to support the idea Father de Smet's party traveled along the original Oregon Trail route over the Bear River Divide, which was in use in 1841. Moreover, John Bidwell, who accompanied DeSmet, confirms that the Jesuit priest did indeed cross the Bear River Divide in 1841 (Bidwell 1941:20-21).

On August 19, 1843, John Charles Fremont visited the area under study on an "exploratory tour of service." His journal provided the first detailed description of the Bear River Divide area. He wrote,

We crossed a ridge of this conglomerate, the road passing near a grove of low cedar, and descended upon the heads of Ham's [Black's] fork, called Muddy [Little Muddy Creek], where we made our midday halt (Jackson and Spence 1970:469).

He reported finding some fossil-bearing rocks. The next day they continued up the creek by a very gradual ascent and a very

excellent grassy road, passing on the way several small forks of the stream.

The hills here are higher, presenting escarpments of parti-colored and apparently clay rocks, purple, dark red, and yellow, containing strata of sandstone and limestone with shells, with a bed of cemented pebbles, the whole overlaid by beds of limestone. The alternation of red and yellow gives a bright appearance to the hills, one of which was called by our people the Rainbow hill; and the character of the country became more agreeable, and travelling far more pleasant, as now we reached the lower level of a bed of white limestone, lying upon a white clay, on the upper line of which the whole road is abundantly supplied with beautiful cool springs, gushing out a foot breadth and several inches deep, directly from the hillside. At noon we halted at the last main fork of the creek, at an elevation of 7,200 feet, and in latitude, by observation, 41 [degrees] 39'45"; and in the afternoon continued on the same excellent road, up the left or northern fork of the stream, towards its head, in a pass which the barometer placed at 8,230 feet above the sea. This is a connecting ridge between the Utah or Bear river mountains and the Wind River chain of the Rocky mountains, separating the waters of the gulf of California on the east, and those on the west belonging directly to the Pacific, from a vast interior basin whose rivers are collected into numerous lakes having no outlet to the ocean (Ibid.).

He concluded

The ascent to the summit of the gap was occasionally steeper than the national road in the Alleghanies; and the descent, by way of a spur on the western side, is rather precipitous, but the pass may still be called a good one. Some thickets of willow in the hollow below us deceived us into the expectation of finding a camp at our usual hour at the foot of the mountain; but we found them without water, and continued down a ravine [Bridger Creek], and encamped about dark at a place where the springs again began to make their appearance, but where our animals fared badly; the stock of emigrants having razed the grass as completely as if we were again in the midst of the buffalo (Ibid., 470-471).

The reference to the lack of grass in the area is among the first to indicate that a number of travelers were using this general route as early as 1843.

As the 1840s began, western America was on the threshold of a new era: the days of the fur trade were drawing to a close, and the period of the pioneer and covered wagon were about to begin. John Marsh, who had settled in California, wrote letters predicting a great future for Americans who would dare to travel to that foreign country. The message attracted a hearing in the East, and a number of people were interested in the possibility of going to the unknown Far West. Some of the more timid souls backed out before the departure; however, some were willing

to pursue the adventure. There was little known of the route and the country. The assumption that wagons could make the trip was untested. Most of the adventurers were farmers and small town artisans who had no previous experience in travelling such an area. Although with a number of handicaps, they had character and youth (Bidwell 1964:1).

One of the earliest groups of emigrants became known as the Bartleson-Bidwell Party. John Bidwell, author of a journal of the trip, was born in New York in 1819. He had migrated through Pennsylvania to Ohio and ultimately to Missouri. As a young man just passing the age of manhood, he was confident of a better opportunity in the West. Others in the party included John Bartleson, Josiah Belden, Joseph B. Chiles, and the brothers Andrew and Benjamin Kelsey. Benjamin's young wife Nancy and their daughter Ann were destined to be the first white woman and child to cross the Sierra Mountains into California. Others in the party were Talbot H. Green, Charles M. Weber, Charles Hooper, and Nicholas Dawson. In the American tradition, the group organized for the trip and chose John Bartleson as their captain. Just as they were about to depart, a stroke of good fortune befell them. A party of missionaries bound for Oregon came along. This group was headed by the Belgium Jesuit priest Pierre Jean de Smet. The two parties joined forces for the mutual advantage of each. Thomas Fitzpatrick, a veteran mountain man, was guide for the missionary party. His leadership proved invaluable to the joint group and ultimately helped each reach its respective destination. Bidwell's journal of the trip is available in an abridged, printed version (Bidwell 1964:1-2).

In discussing the trip from the Green River west, Bidwell states that by July 26, 1841, the party

Left Green river--moved off in a W. direction--distance 12 miles--encamped on a branch of Green river called Ham's fork. Land high, dry and barren, except upon the streams which afford grass in abundance; also black currants, which though not delicious, are acceptable (Ibid., 20).

According to Dale L. Morgan, Bidwell confuses some of the names along the route. He applies the name Ham's Fork to Black's Fork and further along applies the name Black's Fork to the Little Muddy. This party pioneered the route across the Bear River Divide which later became the major wagon route. However, after Fort Bridger was relocated on the upper Black's Fork, the approach to the upper Little Muddy was slightly altered (Bidwell 1964).

The group traveled 12 miles each of the next three days, July 27, 28, and 29, and only 5 miles on Friday, July 30. On that occasion Father de Smet performed the marriage ceremony for Widow Gray, a sister to Mrs. Kelsey, and Richard Phelan, a one-eyed trapper (Bidwell 1964:20).

On July 31, Bidwell continued the journal:

Left Ham's fork [Black's Fork] this morning. A distance of 14 miles, over an uncommonly hilly road, took us to Black's fork [Little Muddy] of Green river, on which we encamped. Here we found a little grass and no wood. The hills, which everywhere rose to view, were thinly clad with shrubby cedars.

The fruit found in this lonesome part of creation--serviceberries on the mts. and currants on the streams. In the afternoon we descried a large smoke rising from beyond the intervening chain of hills. From this and other signs we were assured that there were plenty of Indians in the country. It was necessary therefore to keep a vigilant look-out, lest the Blackfeet should leave us minus a few horses.

Sunday, August 1st. Ascended Black's fork [Little Muddy] about 12 miles.

Monday, 2nd. Retraced about 2 miles of yesterday's travel and went up another defile in order to find a practicable route across the divide between the waters of Green and Bear rivers; plenty of grass, good spring water, distance 11 miles.

Tuesday, 3rd. Ascended a high divide and passed down by a most difficult route into the valley of Bear river. The course of this stream was marked out as it wound its way through the vale by the willows that skirted its banks. Reached the river where we found abundance of grass, having come about 20 miles.

Wednesday, 4th. Did not travel.

Thursday, 5th. Proceeded downstream about 18 miles.

Friday, 5th [6th]. Had a fine road down the valley of Bear river and made about 25 miles during the day. Found many kinds of wild currants, red, black, yellow, &c., some of which were of an excellent quality.

Saturday, 7th. This morning we were obliged to make an inland circuit from the river, the bluffs approaching so near the river as to render it impossible to continue along its banks. We, however, reached it again by a most beautiful defile, land beautifully watered by a small rivulet proceeding from a spring. In the afternoon we again left the river on account of the hills, and did not reach it again until dark. The bluffs were exceedingly high, and no person could ever believe that wagons ever passed these huge eminences of nature, did he not witness it with his own eyes. But the pleasing view we had from their top, just as the sun was going to sleep behind the western mountains, paid us for all our trouble. A most beautiful landscape presented itself to view--the rugged summits of almost every shape were fantastically pictured upon the sky bounding the western horizon. A beautiful little lake was seen to the south, whose surface was fancifully mottled with numerous islands, while the river meandered proudly through the valley among the willows and scattering cottonwoods till it disappeared among the hills in the shades of evening. Distance traveled today, 16 miles.

Sunday, 8th. Started about noon and went ten miles; scenery of the country was grand.

Monday, 9th. Distance 18 miles.

Tuesday, 10th. The day was fine and pleasant; a soft and cheerful breeze and the sky bedimmed by smoke brought to mind the tranquil season of autumn. A distance of 10 miles took us to the Soda Fountain, where we stopped . . . (Ibid., 20-21).

Here the party turned southward toward California.

As early as July 1842 a temporary trading post was started on the prominent bench fronting Black's Fork just south of the present-day Wall Reservoir. (The editor of the John Boardman journal indicated that some building was done on this trading post in 1842, but the first supplies were stocked in the summer of 1843 (Utah Historical Quarterly, 2, 1929:107).) This post was abandoned in 1843, but another site on Black's Fork was chosen the following year. Aubrey L. Haines believes that the first post was of little consequence to emigrants, and there is scant evidence that they received any substantial supplies there (Haines 1981:269).

Jim Bridger, who established the first major trading post, was born in Virginia in 1804. He later apprenticed to a blacksmith in St. Louis and in 1822 went west as a trapper with the Andrew Henry party. After the fur trade began to decline in the early 1840s, Bridger was in demand as a scout and guide. Commanders were particularly interested in his services because he reportedly never forgot the features of an area he had once traveled. He had strongly developed senses that enabled him to detect the presence of Indians when no one else did (Franzwa 1972, 111).

In 1843 Bridger established a trading post. He talked about it in a letter dictated in December to Pierre Chouteau, Jr., a St. Louis merchant.

I have established a small fort with a blacksmith shop and a supply of iron in the road of the emigrants on Black's Fork of Green River which promises fairly. They, in coming out, are generally well supplied with money, but by the time they get there are in want of all kinds of supplies. Horses, provisions, smith work, etc., bring ready cash from them, and should I receive the goods hereby ordered will do a considerable business in that way with them. The same established trades with the Indians in the neighborhood, who have mostly a good number of beaver among them . . . (Federal Writers' Project 1939:98-99).

Bridger had tasted the frontier and could never settle down to one place. He had an Indian wife and lived much like the Indians did, eating and sleeping whenever he chose. He moved about often and so established a partnership with a Mexican named Louis Vasquez who would assist him in the day-to-day operation of the trading post. Many times, however, emigrants found no one at the fort during the traveling season. At least six journalists report visiting Fort Bridger or the houses of Louis Vasquez and Jim Bridger in August 1843. The earliest reported mention of the fort was in July 1842 in the account of Joseph Williams (Utah Historical Quarterly 2, 1929:107, 109). Aubrey L. Haines recounted the brief entries of travelers who kept journals and reported visiting Fort Bridger. Among them were Overton Johnson (August 13, 1843), James W. Nesmith (August 14), Pierson B. Reading (August 14), William T. Newley (August 14), John Boardman (August 13), and Theodore Talbot (August 30). John Boardman's journal is of special interest because he traveled from Fort Bridger to the Bear River Divide. Of Fort Bridger Boardman wrote:

Sunday, August 13th. Pleasant. Arrived at Bridger and Vasquez's fort, expecting to stay 10 or 15 days to make meat, but what our disappointment to learn that the Sioux and Cheyennes had been here, run off all the buffalo, killed 3 Snake Indians, and stolen 60 horses (Boardman 1929).

The next day Boardman reported "Lying by at the fort. All the companies came up. Many do not know where to go." Over the next few days some of the groups departed. On August 17 Boardman reported that he "started for Bear River to get meat. Road bad." The next day the road was "good," and they "camped at sunset on Bear River." On Saturday, August 19, they sought another camp as the Indian horses had eaten all the grass at that location. They went to another branch of the river about two miles distant and camped there. The group had some difficulty in securing enough meat for their travels since the buffalo were scarce. On August 28 they "made a start down Bear River at 10 a.m. After going 5 miles, one of Chiles' wagons broke a hound and we camped for the night to repair it." On September 1 they "came into the Oregon Company's trail. Camped on Bear River." That night they experienced a "severe frost." They proceeded down the Bear River. He described the area,

The valley of Bear River appears good land but destitute of timber; from 1 to 3 miles wide. Saw some blackbirds today, which appears like home. Plenty of trout in the river, also ducks and geese, and many antelope on the hills, but hard to get a shot at" (Boardman 1929:109-110).

On September 7, after several days of rain, they reached the "famous Soda Spring."

The water boils up in numerous places, and has no visible outlet. The water much superior to that manufactured in the States; it is very pleasant and I took my fill. The stones show volcanic action has taken place; resemble pumice stones, except heavier. The country for miles is full of fissures, very deep, where the rocks are rent and thrown into many shapes (Boardman 1929).

Four days later they reached Fort Hall. The fort was "situated in a large plain on Snake River; & built of squaw cakes of mud baked in the sun; it is inferior to Fort Laramie. Plenty of timber, water, and grass." There were few supplies, however, and only sugar and coffee available at 50 cents per pint, which was considered high. Dry goods were cheaper than "at any of the other posts." Some chose to go toward California while others moved toward Oregon. Boardman reported

. . . we parted with and bade farewell to our companions, those who had encountered with us all the troubles, trials and difficulties of the rout, and started for Oregon, not having sufficient provisions to go the long way with the wagons (Boardman 1929:110-111).

James Clyman, in his 1844 journal, gives details of some of the topographical features between Fort Bridger and the Bear River Valley.

Leaving Fort Bridger on the 1st of September, Clyman provides a good description of the trail over the Bear River Divide.

Sunday [the] 1st of September 1844 Moved out north across the hills from Bridgers Trading House found the road rough & hilly & perfectly bare of grass crossed Several steep & deep ravines one of which had some pools of poor Brackish water standing in it in the afternoon passed a low range of hills covered with cedar to our left and encamped on a creek called muddy emptying into Hamms creek our rout through this Green River vally has been verry crooked & might be easily made to save about 50 miles by keeping more westwardly as the rout is equally level & the only object of this zigzag road is to pass the trading hous which however is some convenience as we ware able to trade every extra article we had for mokisens & leather clothing. exchanged of all our worn out mules & horses 20 miles

2 Fine & dry moved westwardly up the vally of mudy creek which is entirely bare of grass made 12 miles & encamped in a Loose Scattering manner grass Scarce & dried all up pased Several ranges of volcanic hills rocks standing nearly perpendicular running as usual from S.W. to N.E. But different from any I had before noticed the perpendicular Bluffs being on the eastern side & the gradual slope on the west the sides of many of the ridges are covered with scatering cedars but most of them are bare having Scarcely any vegetation on them not even the wild Sage which seems to be the hardiest vegitable in this cold dry region & I can now see several Bunches Just dropping the Bloom although we have had but few nightis without frost since we came in sight of the snow capt mountains game antelopes grouse & Rabbits

3 I let my Horses loose a little before day & they took the road ahead & I did not come up with them for about 4 miles whare they stoped to graze on a small valy of fine grass whare we all Should have encampd last night all Subordination and controle haveing been broken up for several days thinking ourselves out of danger at least danger of life But all Savages will Steal & so will the Shoshonees a partiy of which are now passing while I am writeing Made 5 miles & encamped at a fine Sping of water the head of the North branch of Muddy on a fine platte of grass the rout to cross the Second mountain or devideing ridge between Green river & Bear river Several of us are preparing to go through on Horses & are Buisily preparing for our departure tomorrow nothing for fire but Sage

4 Left our encampment Early 4 of us on packhorses for fort Hall & In a few hours we arived at the top of the ridge or mountain devideing the waters of green river and Bear riiver which last Emties in to the Great Salt Lake from the top of the ridge we had a fine view of Green River vally which at this season of the year Looks Bald rough & desolate the Bear River vally ahead not quite so Bad but bear & Bad Enough every thing looking dry and parched the road up the East side

follows a ravine whose sides are finely clothed in many places with aspin groves and the assent not verry Steep or difficualt several fine Springs breaking out Just below the assent the asent westward is steep in several places & some sideling ground that requires some care & a good spring Breaks out on Left of the road made 30 melis & encomped on Bear river (Camp 1928:94-95).

In August 1844 an emigrant named Hammer recorded his experiences in the general area. On August 16 he wrote that they camped "near bridger's fort," where they saw a number of Indians. They remained in camp until August 19 whereupon they departed and made 20 miles to the "big Muddy." The next day they reached the springs at Bear River. By traveling 50 miles the next two days, they reached "Bear springs of soda springs," where they encountered some Snake Indians (Hammer 1844).

The Reverend Edward Evans Parrish kept a diary of his travels to Oregon in 1844. Parrish was born in 1791 in West Virginia and was twice married. Preparations for his trip were started in October 1843 and concluded in the fall of 1844. On Friday, August 30, 1844, he reported that "We got an early start and drove till about half past three o'clock and camped near the Green River Fort known as Bridger's Fort. The water and grass are fine." After spending two days at the fort, on Sunday, September 1, they "made a pretty good start and drove long and hard and finally camped again on a small creek with very high banks and plenty of water, though not clear. Plenty of coarse grass, half dry." He reported several cool nights with frost visible. On September 2 he wrote, "We have been in sight of the snow-capped mountains for some time past, which kept it cool and frosty." Because of reports of it being 22 miles before the next site with water and grass, some of the wagons turned toward a small creek where they found "neither wood nor grass." Others choosing to continue found a small creek about six miles distant where they "found plenty of grass, wood, and water." He reported that a Mr. Robinson, who had been to Oregon four times, was in their company.

He has given a good account of the country, which has relieved the minds of several of our company who had become dissatisfied through the lies of a young Smith, of notoriously bad character, who had just come from Oregon (Parrish 1888:104-105).

On September 3 they

• . . passed several good springs as we went up the little creek, which I believe to be the same one mentioned on Monday, the 2nd, the creek with high banks, which I here name 'Deep Creek' on account of its deep bed and high banks. We are now near the head of the branch and we start in the morning for the waters of Bear Creek.

Other wagons joined them and they made it to Bear River the next day (September 4).

The fore part of the day we had a good road up the valley of the little stream I call Deep Creek, but the grade gradually

rose from one to seven or more degrees. Then we reached the summit of the mountain, highest, to appearance, that we have crossed. The ascent was more gradual than the descent. The road went winding down a hollow, exceedingly rough for several miles, until we reached the valley of the Bear River, when the road became better. My wagon stuck in the mud as we crossed a branch to-day (Ibid., 105-106).

On September 6 (Friday) they got away from camp at 7 a.m. on

. . . as good a road as is needed and crossed the river twice and a creek once. This is a mountainous part of the road. The mountains on every hand high. We drove our own cattle to-day and, of course, did not have to go back after the loose cattle as I did yesterday. We are camped on the north side of the Wolf River [the actual name of this river is not clear], a beautiful stream, not much inferior to the Green River in size and appearance (Ibid.).

They reached the Soda Springs on September 9. He reported that "these Soda Springs boil up in large places and are a curiosity indeed." The company reached Fort Hall at about 3 in the afternoon of September 13 and made a short stop. They then proceeded 6 or 7 miles before making camp for the night (Ibid., 106-108).

At approximately the same time in 1844 John Minto was also in the area. He wrote, "On August 31 we drove away late from Fort Bridger up the narrow valley of a small stream called Muddy." They camped "near the head of Muddy, and our course is southwest." They started with a "rush" the next morning and reached the "divide between Green and Bear rivers a little past noon, and stopped to lunch and rest the cattle on the summit. It was a grand outlook." They camped that night "in a very beautiful cove, up rather than down the Bear River, as our road lay." Minto spent several days fishing for trout to help feed some of the travelers. He was in the company of G. W. Bush as they approached Soda Springs. Bush was a mulatto, had a white wife, five children, and was obviously a man of means. Bush was concerned about how he might be received in the new area. Later Colonel M. T. Simmons, one of the company, was chosen as a legislator and helped exempt Bush from an Oregon law which hoped to exclude mulattoes or Negroes from settling in the state. The law was not enforced, happily (Minto 1901:209-213).

As Minto waited for a companion (Daniel Clark) just in view of Fort Hall, "a young girl came to me bringing the new lid of a gallon tin pail heaped with luscious, ripe blackberries. It was a great treat to me. I felt mean at the idea of offering compensation, but ventured to present her with a few fishhooks as a means of thanks, and am sure I noted a flash of the eyes denoting pleasure" (Ibid., 214-215).

Jesse Harritt was born in Indiana in 1818 and started for Oregon in 1844. He went as far as the Mississippi River where his family wintered. The journey was recommenced and concluded in 1845. He took up a donation land claim in Polk County near Salem (Oregon) and engaged in farming. According to the diary of Jesse Harritt, his party reached Fort Bridger, which according to him, was owned by the American Fur Company, on July 16, 1845. After traveling 10 miles, they "encamped on Little Muddy, a small rivulet affording no timber and but little grass."

The next day they covered 12 miles and camped on "a small rivulet called Big Muddy; found no timber and but little grass." On July 18, they traveled 15 miles and made camp at the "head of Big Muddy at a spring affording as cold water as ever run out of the earth; found no timber, but grass in abundance." The journey to the Bear River took five days and covered 64 miles. They finally reached the river after traveling "over mountains and valleys." They reached Soda Springs on July 24 where they found "plenty of grass and cedar wood." Four days later they reached Fort Hall after passing some springs, willows, and cottonwoods. They left the fort on July 30 in the company of three families who were bound for California (Harritt 1911:514-517).

At approximately the same time Harritt reached Fort Bridger, another diarist, John Ewing Howell, reached that locality. He reported upon reaching "Bridgers and Vasques fort" they found good grass and wood. His account continues.

28. Monday. Trav. over some steep hills, crossed a small creek 8 miles from Fort, but little grass, no wood bad water. Camp on a small creek poor grass, bad water, shrubs.
29. Tuesday. Trav. up same creek poor grass all the way over the hills. Camp on creek, grass a little better.
30. Wednesday. Trav. 14 miles up creek to head. good grass all the way, high hills, bad roads. Crossed divide between Black Fork and Bear R. 6 miles. Camp at a spring. Some grass and sage-wood. this divide and the country bordering is diversified with various colors: Red, green, yellow &c and all intermediate hues. Some very good soil. some small cottonwood groves of a dwarfish kind. Some pines and cedars. this place has some pretensions to romantic beauty.
31. Thurs. Trav. down creek and down Bear River and camp on Bear river at a large spring. Bear River at this place is about 50 yds. wide and winds very much across its bottoms which are very wide. The direction of its valley at this place is a little East of North descending surrounded with high hills.
- Aug. 1. Fri. Travelled down Bear River and camped 2 miles above the mouth of Smith's Fork--good camping. For the last 125 mi shrub wood (Howell 1906:146-148).

The next three days were spent traveling along Bear River approximately 48 miles. On Tuesday, August 5, they travelled down the Bear River Valley, crossed several "running branches and springs and camped at Soda Springs." On August 8 they camped at a spring five miles east of Fort Hall (Ibid.)

In July of 1845 Joel Palmer and his party reported traveling 16 miles, crossing the creek several times, and camping on July 25 "near Fort Bridger. This is a trading fort owned by Bridger and Bacus (Vasques). It is built of poles and daubed with mud; it is a shabby concern." After describing the lodges of the trappers and their Indian wives, he reported

They generally abandon this fort during the winter months. At this place the bottoms are wide, and covered with good grass.

Cotton wood timber in plenty. The stream abounds with trout (Palmer 1847:35-36).

After remaining in camp for another day, they departed on July 27 and traveled 8 miles

to Little Muddy. The grazing and water bad. Several bad hills.

July 28. To-day we traveled about sixteen miles. Ten miles brought us to the Big Muddy. Country barren. Our course is up the Big Muddy, land nearly north. Encamped on the creek. Very poor grazing. This is a limestone country.

July 29. This day we traveled about sixteen miles. Our course is still up the Muddy. Emigrants would do well to push up on to near the head of this creek, as the grass is good and there are excellent springs of water. The country is very rough. We saw a few beaver dams.

July 30. We traveled about twenty-five miles this day. Twelve miles brought us to the dividing ridge between the waters of the Green and Bear rivers. The ridge is high, but the ascent is not difficult. From this ridge the scenery is most delightful. In one view is the meanders of Muddy creek. Two companies with large herds of cattle are winding their way up the valley. The bold mountains on either side are very high and rugged. In front and at the distance of twelve miles is the valley of Big Bear river. A ravine at our feet cuts the spur of the mountains, and empties its waters into Bear river. The valley of Bear river is four or five miles wide, with willows along its banks. At a distance beyond the Bear river is a range of high mountains, stretching as far as the eye can reach, their snowy tops glistening in the rays of the sun. The mountains near the trail are rough and have a singular appearance; the earth being of various colors--black, white, red, yellow, and intermediate shades. Occasionally there is a grove of quaking aspen, and a few sour-berry bushes and some cedar. Our camp to-night was on Bear river; the bottom is sandy, and mostly covered with wild sage.

July 31. This day we traveled down Bear river fifteen miles. The bottom is from two to four miles wide, and mostly covered with good grass. The road is excellent. We encamped two miles above Smith's fork. The upper road from Green river comes in two miles back (Ibid.)

According to Dale Morgan in Overland in 1846, the era of emigration began in 1840 "when Joel Walker set out from Missouri for the Pacific as the first avowed homeseeker." Walker took his wife, their children, and her sister. Each year thereafter a few more emigrants made their way westward with most interested in a destination in Oregon. By 1843, the "trickle of emigration became a swelling tide." In 1843, the "Great Migration" pursued the trail to Oregon. The following year a very large emigration headed out primarily for Oregon, but it included the party which utilized the Greenwood Cutoff and demonstrated that "a wagon road, however difficult, had been made all the way to California" (Morgan 1963:14-18).

William E. Taylor was born in Tennessee on June 20, 1820, and relocated in Missouri at an early age. His diary recounts his trip from Missouri to California. On July 9, 1846, he recorded that they traveled 16 miles which "Brought us to Bridger." There were a number of Shoshone Indians in the area, some of whom visited his party. On July 11 they traveled 18 miles and "Camped on muddy a bad camp." The next day they covered 18 miles and "Camped at a good Spring." On July 13 they traveled 25 miles and "Crossed the Bear River mountain." A week later they were near Soda Springs and reached Fort Hall on the 23rd of July (Morgan 1963:120, 126, 127).

Nicholas Carriger, another Tennessee native, was born March 30, 1816, in Carter County. He enlisted, served in the Seminole War, and was stationed part of the time on "the ground occupied by the Cherokee [sic] nation." He migrated to Missouri and lived briefly in Mississippi. He started for Oregon on April 27, 1846, and followed what is possibly the Sublette Trail. Carriger crossed "a mountain to Bear river" on June 24. Unfortunately there is not enough information to determine the precise route. He reached the Soda Springs on June 29 and passed by Fort Hall on August 1 (Ibid., 143-144, 154-155).

Virgil K. Pringle was born in Connecticut in 1804 and relocated with his family to Missouri in 1825. He engaged in business in St. Charles and started a library and a literary society. In 1827 he married Phernie Tabitha Brown by whom he had six children who accompanied him to Oregon. Mrs. Pringle's brother Orus Brown had been a member of the Great Migration to Oregon in 1843. He was so pleased with the land that he returned and persuaded the rest of the family to migrate to where he was taking his own wife and eight children. Pringle and his group departed St. Charles on April 15, 1846. They made their way, with little comment, to Independence on May 7 and with scarcely a pause pushed out into the prairies beyond. The diary of Pringle gives one of the earliest departures from the Independence (Missouri) area, near the confluence of the Kansas and Missouri Rivers. On May 11 he reported that he came into Carel (63 miles from Independence), Missouri, with the whole emigration in sight, (Morgan 1963:166) and added that they were "Divided into two parties." Near Courthouse Rock, Nebraska, on June 18, Octavius Pringle recalled that the group had swelled to 69 wagons "manned by one hundred and fifty men" (Morgan 1963:159-162).

On July 22, 1846, Virgil Pringle reported traveling up Ham's Fork for 18 miles "to Fort Bridger; found grass plenty." The next day they traveled in a "more northerly direction. Went 8 miles and camped at a small stream of salt water." On Friday, July 24, they covered 22 miles and found "very little water or grass. Camped out of our course up the Muddy." On Sunday, July 26, they "Passed over the divide between the waters of Green River and Bear River. Found the road good for a mountain pass. Traveled 22 miles and camped on Bear River." Their total mileage to this point was 1281 miles. On Monday they moved down Bear River for 10 miles and camped with "grass good and willows plenty for fire" (Ibid., 177).

On Sunday, August 2, they reached Soda Springs "and camped to enjoy the novelties of the place which are many and interesting." On Thursday they came within 4 miles of Fort Hall where they camped for the night. The next day they passed the fort and camped 4 miles down on the Portneuf River (Ibid., 178-179).

James Mathers recorded a diary on a portion of his trip from Missouri to California in 1846. On July 21 he and his party reached Fort Bridger after covering 12 miles on a southwesterly course. They remained in camp the following day; but on July 13, he and others separated from the company with whom they traveled. His companions planned to start on "the new rout by the way of the Salt Lake." The others preferred "the rout by the way of Fort Hall." Mathers reached San Jose, California, on November 7 (Ibid., 219, 228).

An unknown emigrant wrote a friend in St. Louis on July 12, 1846, claiming that

the Oregon route may be considerably shortened by avoiding Fort Bridger and passing a stretch of forty five miles without water--[the Greenwood Cutoff or Sublette Trail] but most companies go that way [by way of Fort Bridger]. The emigrants were heartily tired of their journey, and nine tenths of them wished themselves back in the States. The whole company had been broken up into squads by dissatisfaction and bickerings, and it was pretty much every man for himself (Ibid., 623).

J. M. Shively published a guide to Oregon and California in 1846. He gave instructions on how to outfit an expedition, what foods and equipment to take, and a detailed description of the territory to be covered. He reported that when the emigrants reached Fort Bridger, they were 1059 miles from Independence. At Bridger, emigrants were instructed to

. . . fill your kegs; it is 12 miles to Muddy, but the water is salt.

18 miles, another camp on Muddy.

16 miles, another camp on Muddy.

12 miles, a good spring at the foot of the mountain, 5 miles from Bear river.

5 miles brings you to Bear river; keep down Bear river 94 miles to the Soda Springs (1221 miles) where you must stop a day or two and enjoy the luxury of those exhilarating Springs. There are in the vicinity a great many of these springs; the best of all of them you will find at the foot of the mountain, one mile and a half from the camping ground on the river; it is situated one hundred yards from a lone cedar tree at the foot of the mountain. It is cool, resuscitating, and exceedingly delicious.

Leave the Soda Springs early in the morning, and when you go down the river about 4 miles, fill your kegs, as you cannot get to the water, here you leave the river. Six miles below, opposite the great Sheep mountain (Sheep Rock), you will leave Bear river, from which it is 12 miles to a little branch of good water, but no wood; 7 miles further to Portniff [Portneuf] creek, one of the tributaries of Snake river, from which it is 48 miles to Fort Hall (1278 miles). Here you will have an opportunity of buying provisions, swapping cattle for horses, and will receive many acts of kindness from Captain (Richard) Grant, the superintendent of the Fort. Here you

must hire an Indian to pilot you at the crossings of the Snake river, it being dangerous if not perfectly understood.

Fort Hall is situated in a large fertile valley on Snake river; you will not travel far, however, 'till the gloom of desolation will spread around you, grass very scarce, water and wood plenty." The route to Oregon and California follow the same routes until some miles beyond Fort Hall (Ibid., 738-739).

Edwin Bryant, a journalist and an emigrant to California in 1846, took a somewhat different route over the Bear River Divide. This route passed south of the Bear River Divide but serves as an example of another route that passed through Fort Bridger. On July 18, 1846, Bryant's party determined to "take the new route, via the south end of the great Salt Lake." On July 20 Bryant wrote,

We ascended from the valley in which Fort Bridger is situated, on the left of a high and rather remarkable butte which overlooks the fertile bottom from the west. There is no trail, and we are guided in our course and route by the direction in which the Salt Lake is known to lie. The face of the upland country, after leaving Fort Bridger, although broken, presents a more cheerful aspect than the scenery we have been passing through for several days. The wild sage continues to be the principal growth, but we have marched over two or three smooth plains covered with good grass. The sides of the hills and mountains have also in many places presented a bright green herbage, and clumps of the aspen poplar frequently ornament the hollows near the bases of the hills (Bryant 1967:144-147).

After crossing a fresh Indian trail, they experienced an afternoon shower. That afternoon, between 4 and 5 o'clock, they reached "Little Muddy," where they camped. He wrote,

Our camp is in a handsome little valley a mile or more in length and half a mile in breadth, richly carpeted with green grass of an excellent quality. An occasional cotton-wood tree, clumps of small willows, and a variety of other shrubbery along the margin of the stream, assist in composing an agreeable landscape. The stream is very small, and in places its channel is dry. The wild geranium, with bright pink and purplish flowers, and a shrub covered with brilliant yellow blossoms, enliven the scenery around. The temperature is that of March or April, and winter clothing is necessary to comfort. Many of the small early spring flowers are now in bloom among which I noticed the strawberry. Large number of antelopes were seen (Ibid.).

They reached the Bear River in the early afternoon of July 21. Bryant described the river where they forded as

about fifty yards in breadth, with a rapid current of limpid water foaming over a bed so unequal and rocky that it was

difficult, if not dangerous, to the limbs of our mules when fording it. The margin of the stream is thinly timbered with cotton-wood and small willows. The fertile bottom, as we proceeded down it, varying in width from a mile and a half to one-eighth of a mile, is well covered with grasses of an excellent quality; and I noticed, in addition to the wild geranium, and several other flowers in bloom, the wild flax sometimes covering a half acre or more with its modest blue blossom (Ibid.).

He concluded that the area through which they traveled

presented a more fertilized aspect than any we have seen for several hundred miles. Many of the hill-sides, and some of the table-land on the high plains, produce grass and other green vegetables. Groves of small aspen poplars, clumps of hawthorn, and willows surrounding the springs, are a great relief to the eye when surveying the general brownness and sterility of the landscape (Ibid.).

Lester Hulin crossed the Bear River Divide on his way to Fort Hall. He made the trip westward in August 1847 and kept a record of the trip. After following, crossing, and recrossing Black's Fork, his party arrived at Fort Bridger on Friday, August 6, and camped. They remained in camp through Saturday and left on Sunday, August 8, in a northwesterly direction. They traveled

over crooked hilly and rocky roads and in 8 Ms we crossed Little Muddy [Muddy] no camping ground here in 9 Ms more we came to Big Muddy [Little Muddy] up one mile found very good camping for the night distance 18 Ms. (Hulin 1847:15-16)

On Monday they followed the Big Muddy all day over rough and hilly roads. After about 16 miles, they found very good camping. The group passed "3 fine springs," and

soon left Muddy then up a dry branch 4 Ms to the divide across the Mt down a dry branch again 4 Ms to a spring, still down to Bear River or to the valley it being impassible for wagons we were obliged to camp on a creek after following down the bottom 3 Ms no grass here but our cattle went to the river (where we might have went had it not been dark) and found grass roads rough and crooked distance 20 Ms. (Ibid.)

After two days of traveling along Bear River, they encountered good roads, made 18 miles, and camped at the foot of a hill where they found "good grass and water." On Sunday, August 15, they reached Soda Springs (Hulin 1847:15-16).

Also traveling the route in 1847 was Ralph Geer. He wrote,

In going from Pacific Springs to Bear river, half the company went by Fort Bridges [sic], and half by the desert, but the half that went by the cutoff had the worst of it. Three days travel before we got to Soda Springs, we passed the grave of

Elias Brown, who died June 17th, 1847, of Mountain Fever, father of J. Henry Brown, our efficient Secretary, the first grave of the company that left us on Little Blue that we had seen, and the only one we did see.

At the Soda Springs all the sick were healed; and on the first day of August we camped on Snake river (Geer 1879:36).

Cornelius and Elizabeth Dixon Smith took their eight children to Oregon in 1847. Mrs. Smith's diary is "one of the classics of western history." It was written as a letter which included her diary entries. They left from Laporte, Indiana, on April 21, 1847, and arrived at Fort Bridger on August 9 where they camped. She described it as

a pretty place to see in such a barren country perhaps there is a thousand acres of level land covered with grass interspersed with beautiful stony brooks and plenty of timber such as it is quaking asp. one of the superintendents of this place traveled with us from fort Larimy [Laramie] to this place he is a good and intelligent man his name is Vascus [Louis Vasquez] he has a white wife. long will he remember the Capt of our company Cornelius Smith they were good friends (Holmes 1983:111-112).

On August 10 they purchased a team of animals and laid over several more days at Bridger. Thursday they had a good time "washing which we women deem a great priviledge." The next day they left the fort, and after 19 miles made camp on "mudy creek." Twelve miles were registered the next day, and they again camped on the same creek. Sunday saw them pass "over one high mountain" and make 20 miles, but they had to camp without feed, water, or supper. After several days travel along Bear River, they came near to Soda Springs on Sunday, August 22 (Ibid., 128-129).

On May 4, 1847, James L. Findley and Carline Buell were married at St. Joseph, Missouri, where their families had gathered to begin the journey to Oregon. The new couple were members of the "train of 1847." The account of their journey was recounted later by a granddaughter.

They crossed Green river and rested at Fort Bridger, almost half way between the Missouri and the Pacific.

Following the Bear river, the emigrants dropped down to Soda Springs on the Big Bend, one thousand two hundred and sixty-six miles from the starting point (Radford 1926:23-25).

When they reached Fort Hall, they were 1288 miles from Independence (Ibid.).

By 1851 the route west had commercial points along the way. On June 21, 1851, A. A. Denny passed over the summit of South Pass to Pacific Springs to within 1.5 miles of the "Junction of the California and Oregon road." His party had to camp without water and but little grass. When they reached the Green River on June 23, they had to pay \$10 for each wagon and \$1 for each horse to be ferried across the river. Four days later they "Camped on Bear River bottom." The next day Denny reported "Road good up River bottom. Camped on Thomas' fork at the toll bridge." They camped at the last spring at Soda Springs the first day

of July, and on the fourth they reached Fort Hall "which is not occupied by troops at this time" (Denny 1851:7-8). Since he makes no mention of Fort Bridger he more than likely followed the Sublette Cutoff to Fort Hall.

In the 1851 diary of P.V. Crawford, he describes the summit of the Bear River Divide in detail (Crawford 1851:136-169). Crawford left his home in Madison, Indiana, on the 28th of March, 1851, bound for Oregon. He and his family traveled by riverboat to St. Louis and then on to Saint Joseph, Missouri, where they arrived on April 9. The Crawfords remained in Saint Joseph until April 25 when they began their journey westward.

On July 3, 1851, Crawford reached the Black's Fork. His diary from that date until July 9 gives some interesting insights into the journey from Fort Bridger to the Bear River Valley. Crawford writes:

July 3. This day we traveled 15 miles, which brought us on to Black's Fork, within three miles of Ft. Bridger. Here found good grass. Here we fished for speckled trout but caught but very few of them. We are near the snow here, where the stream is fed and the water is very cold.

July 4. This day we traveled 20 miles. Ten miles brought us to a stream that empties into Black's Fork and ten miles farther brought us to another that empties into Hamm's Fork. Our course this day has been northward over a rolling country, studded with red cedar. Weather very pleasant, health good.

July 5. This day our road was rough for eight miles. At the end of eight miles our road left the creek and turned northward up a small stream four miles. Here the scenery is grand. The Green River valley in the east and the Bear River mountains on the west.

July 6. This day we followed up the branch seven miles to its source. Good grass and pure springs all the way. We met a lot of Indians today. They had been out on a hunting expedition, had plenty of game and were in good plight and good humor. Here everything is most lovely.

July 7. This is one day of extreme interest. Here our road led up a long ravine of easy ascent to the top of the divide between Green river and Bear river valleys. The divide is very high and when on the divide we look eastward and see the Green river valley in all of its grandeur, with its snowy range, the source of the river trending northward as far as eye can reach, while on the south stands the cluster of high, snowy peaks that feed Black river fork of Green river and are known as the Bear River mountains, being the source of that stream; then turn west and see the Bear River valley, with its winding stream coursing its way northward through the valley at about 12 miles distant. But we must go. Our road follows the ridge to the right a short distance, then turns down a steep ridge one and a half miles to a ravine, which we follow down five miles to the open valley. Here we found a large spring of pure water, sufficient for all of us and our cattle. Here we also found oceans of grass. Here we refreshed ourselves and again sit out for to reach Bear river, which we

succeeded in doing after night, at 10 o'clock. Here we found grass and water plenty, and for fires, some green [willow] and plenty of growling. But few had supper that night.

July 8. This morning our road led along a sidehill for one-half mile, to where we again enter the valley. Here a spring, sufficient to run a large flouring mill, bursts out of the bluff bank three or four rods from the river. Here a small valley, when we again took over a spur of the mountain, and again entered the valley. Here found thousands of acres of rich, level land covered with wild flax. Traveled 14 miles.

July 9. Our camping last night was on a small spring branch, where Sublette's cutoff comes to the Bridges route, where we found good camping and plenty of trout. Three miles down Bear river this morning brought us to where Smith's fork come in [near present Cokeville]. We had had to travel up the stream some distance to find a crossing, which we succeeded in finding between two high, rugged, rocky bluffs. The crossing was very rough, the stream very swift and full of mountain trout. At the end of 16 miles today we reached Thomas' fork. Here found a bridge and trading post, also lots of Indians (Crawford 1851:148-150).

Crawford continued his trek westward reaching his final destination in the Yamhill valley in Oregon on September 25, 1851.

Mariett Foster Cummings started her trip to California from Plainfield, Illinois, on April 13, 1851, "amidst the tears and sighs of our friends." Ms. Cummings followed a more southerly route over the Bear River Divide and continued west to Weber Canyon in present Utah. This serves as an example of another westward route that crossed the Bear River Divide but did not take the northward swing through Fort Hall. They camped near Fort Bridger on June 30. The next day they

Started early and crossed the last fork of Black's Fork, a very rapid, narrow, deep stream. Raised the wagon beds and then got wet by one of the wagons becoming unblocked and broken. Came to the hills, the sides of which are covered with cedars. Are ascending rapidly today, but passed down the steepest hill we have ever seen, stony and bad, into [what she claimed was] the Valley of Jehosophat. Rather fine.

Near the middle crossed Muddy Fork and through several valleys and then climbed the Utah Mountains, the highest that the road passes over. The descent was very difficult and to make it worse the mules ran halfway down. On the slope was a very fine spring. We passed over the mountains and through vales for several miles to Spring Brook, which we went down a mile. We camped in a little valley where we found the rest of our company. Made 32 miles. The watch tonight saw four Indians near the camp.

2nd, Friday - Went about a mile and crossed Bear River in several channels (Holmes 1985:1,147-148).

After some observations on the same Utah Indians, she noted that July 4 would be the "anniversary of America's Independence" (Ibid.).

George Bond was born in Henry County, Kentucky, on January 13, 1818. In 1853, in company with other family members, he began a migration to Oregon. They reached Bear River via the Sublette Cutoff on July 6. Here along the Bear River, his wagon train merged with the Bear River Divide route. While following the Sublette Trail, he reported that they went "Over the mountain to Bar river Camped on Bar river between Smiths and Thomases fork." They reached Soda Springs on July 11, and on the 16th "crossed Portno [Portneuf] River opasit Fort hall Camped on Portno River the muskeoes offel [mosquitoes awful]." Bond settled near Oregon City and was a Baptist preacher of considerable reputation (Bond 1853:2, 6).

For 1859, the last of the utilized diaries is that of Captain Handcock who gave detailed distances and descriptions of the area.

Miles	
9	Fort Bridger to Little Muddy Creek.--Water brackish in pools along the creek; tall bunch-grass; sage for fuel. Road runs over a barren section, is rough, and passes one steep hill.
12 1/2	Big Muddy Creek.--The road, with the exception of two or three bad gullies, is good for ten miles; it then follows the Big Muddy bottom, which is flat and boggy. The camp is three miles above the crossing. Some grass; sage for fuel.
14 1/2	Small branch of the Muddy Creek.--Cross the river in three miles at a bad ford. A mile above the camp the grass is good. Road generally good.
19 1/2	On Small Creek.--Road continues up the Muddy 9 1/2 miles to its head. It then ascends to the divide between Bear and Green Rivers, probably 800 feet in 1 3/5 miles. The descent on the other side is about the same. The road passes many fine springs. At one and two miles back it passes points of hills where it is very rough. Good grass and sage at camp.
8 9/10	Bear River.--Bad creek to cross near the camp; thence to Bear River Valley the road is good. It then follows down the river, crossing Willow Creek. Good camp, with a large, fine spring.
17	Bear River.--Good road along the river; plenty of wood, water, and grass at all points. Foot of Grant's Mountain.--Road runs along Bear River; at 2 1/2 miles strikes Smith's Fork, a rapid trout stream. The road crosses the lower ford. A few miles farther on is a bad slough, which can be avoided by taking a round on the hills. Cross Thomas's Fork on a bridge, also a slough near it; toll \$2 for each team and wagon. The road then leaves Bear River Valley and turns over a very steep hill. Good grass, wood and water.
12	Bear River.--Road ascends Grant's Mountain 1200 feet in 1 1/2 miles--double teams--then descends again into Bear River Valley at 4 4/5 miles. Good wood, water, and grass.

17 2/5 Indian Creek.--Road crosses eight fine spring branches; camp is on a beautiful trout stream. Good wood, water, and grass.

11 Spring near Bear River.--Road is hilly, crossing two spring branches. Good wood, water, and grass. The camp is on the left and near the road.

11 Bear River.--At 6 7/10 miles the road strikes a large group of springs called 'Soda Springs,' and here crosses Pine Creek, on the left bank of which is a saleratus lake. Soon after it strikes the main springs, and after crossing another creek the 'Steam-boat Spring' may be seen in the bed of the river.

15 'Port Neuf,' or Rock Creek.--At 2 3/10 miles the road leaves Bear River near where it runs through a canyon with high bluffs on each side. At this point the California and Fort Hall roads separate. The California road [called Hudspeth's Cutoff] then crosses a valley between the Bear River and Port Neuf River Mountains, 9 miles (Marcy 1859:279-280).

This latest diary in point of time gives the best description of places, the countryside, and the mileage.

In his introduction to Across the Plains in Forty-Nine, Milo Milton Quaife summarized travel to the west. He wrote, "There were, of course, many overland routes and variations of routes, but the one followed by the largest number of gold-seekers was the famous Oregon-California Road." After tracing the route in general terms from starting points to the South Pass in western Wyoming, he reported that

after crossing this well-nigh imperceptible backbone of the continent the main road turned southwardly to Fort Bridger, which afforded the first civilized stopping-point west of Fort Laramie. From Fort Bridger the road turned northwardly again to Fort Hall, near present-day Pocatello, Idaho (Shaw 1948:xx-xxi).

Traveling west from Fort Bridger to Fort Hall necessitated crossing the Bear River Divide. Travelers who chose the Fort Bridger route found it much smoother than the "mountainous western end of Sublette's Cutoff, but it was by no means shorter either in miles or in traveling time" (Lavender 1963:377-378, 392). The Sublette Cutoff ran west from Parting of the Ways and did not swerve south to reach Fort Bridger. By avoiding Fort Bridger, a more direct route to Fort Hall was followed, which saved time and added mileage. Using the route through Fort Bridger, the emigrants in need of supplies could obtain at least a few essentials. More importantly, the Black's Fork provided good water, and Fort Bridger had a blacksmith shop. Even though some complained about what they found at Fort Bridger, the fact that there was a place to stop and rest and possibly refit attracted some emigrants to the longer route instead of the Sublette Cutoff.

After leaving Fort Bridger, the trip northwest to Fort Hall over the Bear River Divide was not a difficult one. The trip up Muddy Creek, though sometimes lacking in grass for the livestock, always had water.

Water was lacking along the "Dry Drive over the Sublette Trail." Once to the headwaters of Muddy Creek, grass was plentiful. The descent to the Bear River was not difficult when compared to the "Rock Slide" found on the western end of the Sublette Trail. The presence of a trading post, a fairly well-watered path to the Bear River Divide, and the gentle descent to the Bear River made going west via the Fort Bridger to Fort Hall route attractive to the emigrants. Although other trails, such as the Sublette Cutoff, probably received more traffic, the Bear River Divide was an important trail that received a significant amount of travelers moving west to Oregon and California during the middle part of the nineteenth century.

Historical Maps

As a result of Fremont's 1843 expedition, the first map depicting the trail route over the Bear River Divide was produced. This map, compiled by Charles Preuss shows the trail crossing the divide with no northerly or southerly deviations (Figure 3). In crossing the divide, Preuss shows the trail as following Muddy Fork to the head of the creek. Fremont's journal is more precise and states they followed the "northern fork of the stream towards its head" (Jackson and Spence 1970:469-471). After crossing the summit or "the gap," they descended to the northwest down what Preuss calls Muddy Fork. This drainage is more than likely Bridger Creek. Fremont followed Bridger Creek westward to the Bear River Valley before turning north. Once in the valley they followed this river north, crossing Twin Creek just east of its confluence with the Bear River (Preuss 1846).

With the increased use of the trails by emigrants in the 1840s and 1850s, guide books giving route descriptions and maps of the trail variants appeared. For example, in 1846 the "Shively Guide" discussed crossing the Bear River Divide between Fort Bridger and Fort Hall. Unfortunately, the precise route of the trail over the divide is not clear. In 1840 a general map showing travelers the route westward was compiled by David H. Burr (Figure 4). It does not give precise information, but it shows that the trail dropped southward near where Fort Bridger would later be erected and then traveled northwest over what is probably the Bear River Divide (Scott 1958:111). From 1857 to 1858, under the direction of F. W. Lander, the United States Department of Interior conducted a survey of the "Pacific Wagon Roads." The purpose of this survey was to provide accurate route maps. Although Lander did not provide detailed information about the Bear River Divide area, he did show a "practicable route" along what appears to be Twin Creek. This "practicable route" stays within the valley and shows no southerly spur (Scott 1958:1112). None of these early maps give precise information about where the trail actually crossed the Bear River Divide, but they do show such things as cutoffs and general trail routes.

The construction of the Transcontinental Railroad in 1869 created a need for accurate and detailed maps. Initially this mapping was confined to the Union Pacific railroad corridor, but in the 1870s a number of maps detailing the trail routes were generated. In 1876 Major G. L. Gillipes prepared several maps covering the western portion of the United States. Sheet Number 3 for "the Western Territories" provides good topographical details for the Bear River Divide (Figure 5). Like

nt,
les Preuss



Figure 3. Fremont's route over the Bear River Divide in 1843. This map was compiled by Charles Preuss in 1846. Preuss accompanied Fremont as his assistant. (Original map on file Latter Day Saints archives, Salt Lake City, Utah.)



Figure 4. This map compiled by David H. Burr in 1840 shows the "Sublette Route" [sic] as the most direct route to Oregon (Scott 1958:111). Note, the Sublette Trail here includes the main route over South Pass, and the route to Fort Bridger is not assigned a name. This was compiled under direction of Robert Greenhow to accompany his memoir on the northwest coast. It was published by order of the United States Senate (taken from Scott 1958).

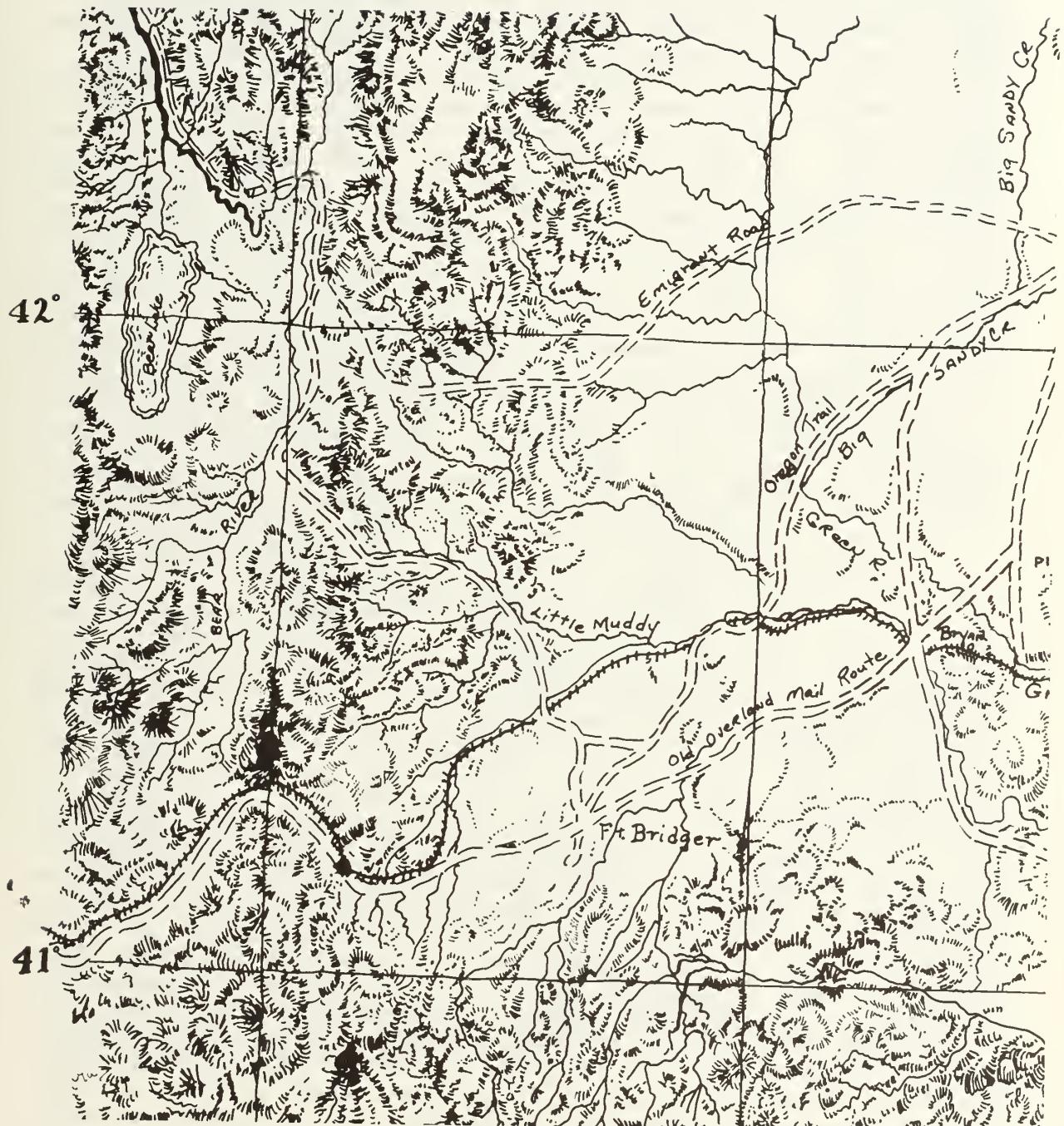


Figure 5. This map shows the trail over the Bear River Divide as illustrated by Major G. L. Gillipes, Army Corps. of Engineers, in 1876. This figure has been drafted to scale after Gillipes' original map with the route over the Bear River Divide clarified as two wide lines instead of the narrow single lines used on the original map. (Original map on file Denver Public Library, redrafted by Sharon Dolan.)

the map drawn for Fremont's expedition, Gillipes' map shows the trail following Little Muddy to its head and then crossing the divide to a drainage (probably Bridger Creek) on the west side of the ridge. Essentially the trail runs from east to west over the Bear River Divide with no northerly or southerly deviations.

A map of southwestern Wyoming, southeastern Idaho, and northeastern Utah, drawn by Henry Gannett, M.E., topographical assistant to F. V. Hayden in 1877, clearly shows the area immediately north of the Bear River Divide. The map shows the locations of the Lander Cutoff, the Sublette Cutoff, the Slate Creek Cutoff, and the segment of the Oregon Trail paralleling the Bear River. The actual crossing of the Bear River Divide by the Oregon Trail is off the border of the map. However, the map does show the area around Twin Creek and almost the entire length of Collett Creek. It gives no indication of a trail paralleling Collett Creek. A road parallels Twin Creek from the Bear River Valley eastward to Bell's Pass where it terminates. This road passes a coal mine at the location of the town of Sage. Again, there is no indication of a trail or a road moving south from Twin Creek toward the Bear River Divide at any point along this road. The fact that other segments of the Emigrant Trail are clearly located seems to preclude the possibility that a Collett Creek variant existed. This is substantiated by Fremont's and Gillipes' map. It therefore seems likely that a route off the Bear River Divide along Collett Creek was not used by emigrants moving west.

In 1883 G. L. Holt produced a map for the "Territory of Wyoming." According to his map, at least portions of the trail from Fort Bridger to the Bear River Divide had already fallen into disuse. The map clearly illustrates the Central Pacific Railroad Survey. This survey originated in California and proceeded eastward. Following Bridger Creek to its head, it reached the Bear River Divide and then descended into the headwaters of Little Muddy Creek (Figure 6). This survey route is the same as that used by the overland emigrants crossing the divide. Like other maps of the period, it does not show any northerly or southerly deviations in the trail crossing the Bear River Divide. By 1883 the Oregon Short Line had been constructed through the Twin Creek Valley. Yet even with this new railroad network, the maps continue to show the trail going into the Bear River Valley via Bridger Creek before turning north. None of the early maps show the trail following Fossil Ridge or Collett Creek to Twin Creek and the Bear River Valley.

In 1905 A. C. Veatch created a map of present-day Lincoln and Uinta counties showing the various geological formations and topographical features in the area. This map was published in 1906. The map and field notes concerning the Bear River Divide area are fairly detailed (USGS Photographic and Historic Archives). Veatch's map shows the trail traveling westward along Chicken Creek before crossing the Bear River Divide. The trail then descends Bridger Creek to the Bear River Valley (Figure 7). Veatch's field record illustrates the trail on the east side of the divide, but it is not clear as to the precise location of the trail crossing. Based on his notes, it seems Veatch was uncertain as to which drainage the trail followed to ascend the Bear River Divide. Seemingly, he felt the trail crossed the ridge as he illustrated it on his map. However, he was uncertain as to its precise location.

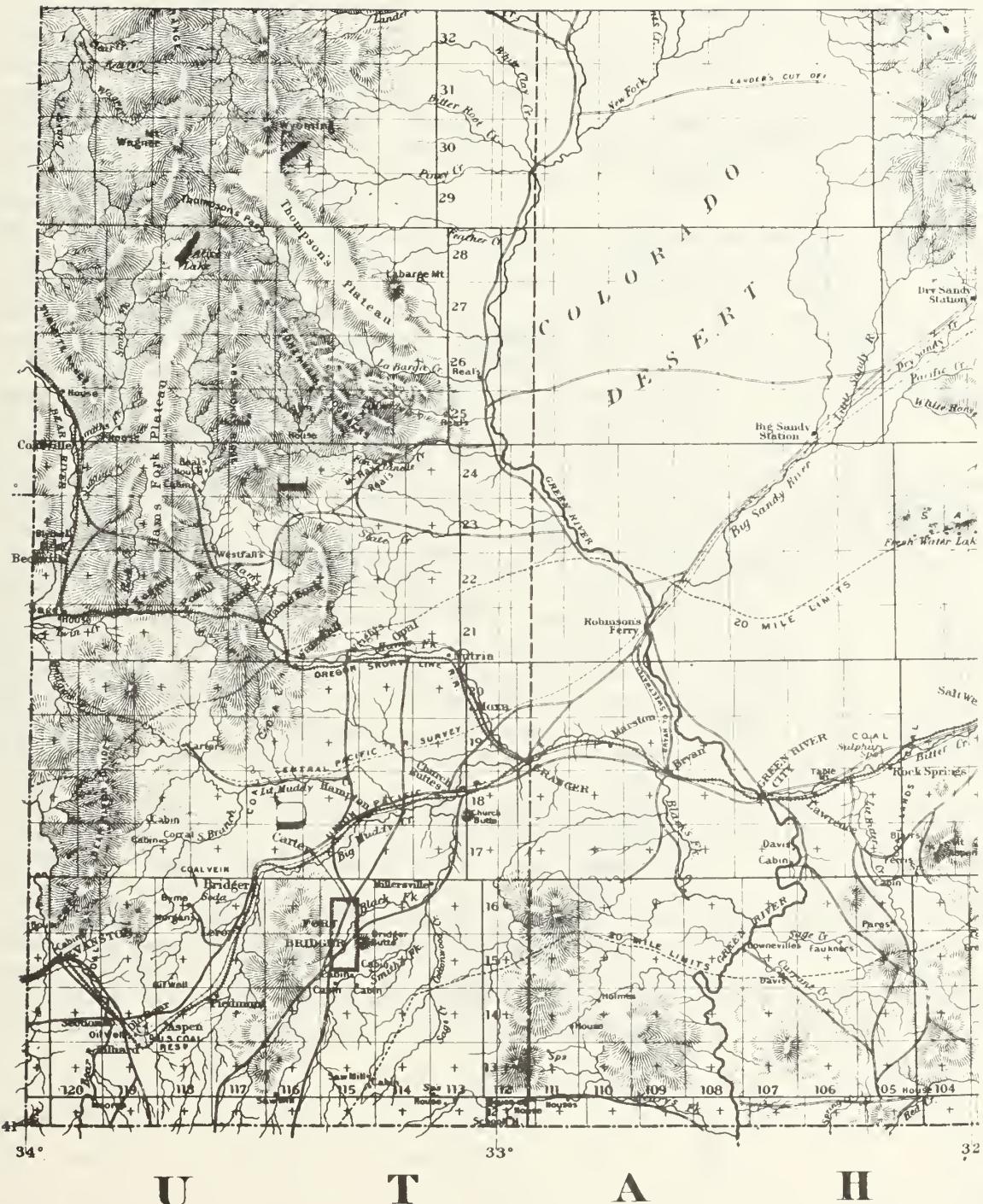


Figure 6. This map was entitled "Holt's New Map of Wyoming" and was compiled by permission from official records of the U. S. Land Office. This figure shows the southwest corner of the 1883 map.

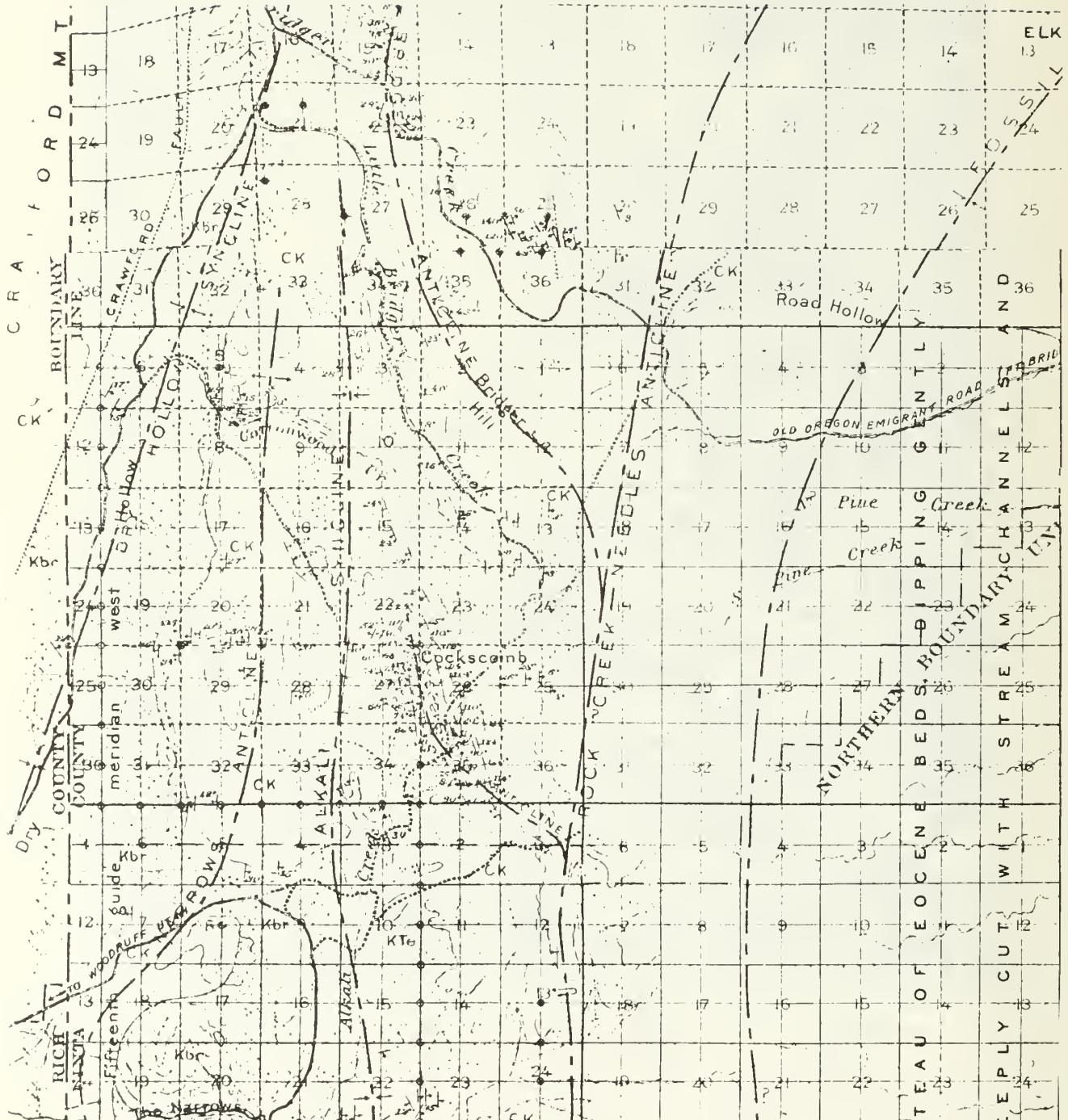


Figure 7. A. C. Veatch's 1906 map of "Southern Wyoming." Note that Veatch calls Little Muddy Creek, Road Hollow. Taken from "Geography and Geology of a Portion of Southwestern Wyoming," U. S. Geological Survey Professional Paper No. 56.

Of particular interest is the presence of ranches and ranch roads on Veatch's map. He clearly illustrates a ranch road along the crest of the Bear River Divide. There is also one route that follows "Little Bridger Creek" to the Bear River. The road along the divide is shown ending in Section 32, T20N, R119W. There is no road connecting northward toward Twin Creek shown on the map. Veatch does show a road ascending Collett Creek from Twin Creek. However, this road terminates over seven miles north of the point where the Oregon Trail crosses the Bear River Divide (Veatch 1907).

As mentioned above, Government Land Office survey maps for the area began to appear in 1880. By 1909 and 1911, additional GLOs for the area were also available. The 1881 GLO for T20N, R119W shows no roads through the Bear River Divide area. This map was considered unreliable, and a new survey was conducted in 1911. By 1911, numerous ranch roads were apparent. In addition to resurveying T20N, R119W, GLO surveys were conducted for T19N, R118W, and T20N, R118W. These 1911 surveys show numerous ranch roads, but there is no mention of the Oregon Trail.

The Government Land Office was interested in generating maps that depicted existing roads and topographical features evident at the time of their survey. By 1911 when the first accurate field map was generated for the Bear River Divide area, a number of ranch roads were in use. These ranch roads spread out in all directions. Because of rich forage along the divide, this area served as ideal spring and summer pasture. When sheepherders used the area for their flocks, moving the herd from place to place was necessary to prevent overgrazing. Since the sheep wagons moved with the flocks, trails developed. Cattlemen also transported equipment by wagon to the ridge tops and summer pasturage. This movement of animals and supplies created a new road system along the Bear River Divide that centered around ranching.

The switch in emphasis from westward migration to ranching changed the road patterns. Instead of the emphasis being placed on moving east to west, the focus became to find the best route to move cattle and equipment from the valley floors to mountain tops. This pattern of transhumance, where valleys served as winter pastures and mountains as summer pastures, was practiced throughout the West. The roads shown on the 1911 GLOs reflect the change from westward migration to ranching. Therefore, the roads shown on these maps reflect conditions in 1911 and not necessarily those evident in the mid-1800s.

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CHAPTER III

RESULTS

Trail Remains

As a result of the historical research and field survey, nine possible trail variants were inventoried. The purported trail variants over the Bear River Divide were named according to the drainage or ridge system they follow. Specifically, nine different areas were identified as possibly containing trail remains, and they were inventoried. The areas surveyed include (1) Little Muddy, (2) Road Hollow, (3) Chicken Creek, (4) the Ridge Variant, (5) the Divide Segment (Bear River Divide), (6) Spring Creek, (7) South Bridger Creek, (8) North Bridger Creek, and (9) Collett Creek. Table 3 gives the location and condition of the Oregon Trail by variant. Appendix B provides maps showing the condition and location of the trail variants.

In evaluating the trail remains, four criteria were used. These criteria follow those established by the National Park Service and include (1) trail segments with integrity of setting and place, (2) trail segments with integrity of place, (3) trail segments that have been visually or physically impacted, and (4) trail segments that are no longer evident. This latter category also includes trails that cannot be verified through archival records. All of these criteria are based on the condition of the trail at the time of inventory.

Identifying the trail routes began by analyzing historic documents and maps. Once the route was defined by archival records, fieldwork was necessary to determine the exact location and state of preservation of the trail ruts. Intact trail ruts are relatively distinctive. In places where there has been little or no disturbance, they are recognizable as parallel furrows worn into the ground. Between the ruts and on either side of the grooves, swales are evident. These swales are the result of repeated use of the trail. In some places, more than one set of trail ruts can be identified. These sets of ruts are the result of travelers passing slower wagons or the consequence of emigrants trying to avoid low, muddy spots. In areas where the trail crossed rocky slopes, the soil has never built back up and the ruts appear as two parallel rows.

Portions of the Oregon Trail which exhibit pristine, intact ruts and have no disturbance near the trail were classified as having integrity of setting and place. These trail segments exhibit swales and vegetation in most of the ruts. The area surrounding these ruts have no visual intrusions. Essentially the area the trail passes through has changed little since the trail was in use in the nineteenth century. These trail remains are in excellent condition.

Trail segments designated as having integrity of place exhibit some sort of disturbance adjacent to the trail. This disturbance does not impact the trail and is most commonly manifested as a visual impact. In some instances a road or well pad was constructed adjacent to the trail. The trails themselves, however, exhibit no adverse impacts and have ruts and swales evident. The only impact to the trail itself comes from off-road vehicle traffic. This is minimal and has not affected the trail's integrity of place. These trail remains are generally in good to excellent condition.

In a few instances trail segments exhibiting integrity of place are intermittent. For example, at the head of Little Muddy Creek, stock ponds, spring enhancement, erosion, and cattle grazing have destroyed segments of the trail. The trail is in good shape until it reaches one

Table 3. Legal locations of trail remains by variant (See Appendix B). The trails are listed from east to west by township and range.

Trial Segment	Township	Range	Section	Condition of trail	Recommendations for future work
Muddy Creek 1	T18N	R117W	10: NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Clearance except for areas where trail ruts parallel crown and ditch road. Ruts must be avoided.
			3: SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Clearance except for areas where trail ruts parallel crown and ditch road. Ruts must be avoided.
			4: SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Clearance except for areas where trail ruts parallel crown and ditch road. Ruts must be avoided.
			9: NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Clearance except for areas where trail ruts parallel crown and ditch road. Ruts must be avoided.
			5: SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Clearance except for areas where trail ruts parallel crown and ditch road. Ruts must be avoided.
Muddy Creek 1	T19N	R117W	32: SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities until it reaches the NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of the section where it exhibits integrity of both setting and place.	Avoidance of areas with intact ruts. Clearance for area adjacent to the ruts in area of previous disturbance only.
			31: NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$	Trail segment exhibits integrity of both setting and place.	Avoidance

Table 3. Continued.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work
Muddy Creek 1	T19N	R117W	30: SW _{1/4} SE _{1/4} SW _{1/4} SE _{1/4} , SW _{1/4} SE _{1/4} SE _{1/4} NW _{1/4} , NW _{1/4} NW _{1/4} NW _{1/4} NW _{1/4}	Trail segment exhibits integrity of both setting and place.	Avoidance
			19: SW _{1/4} SW _{1/4} SW _{1/4}	Trail segment exhibits integrity of both setting and place.	Avoidance
	T19N	R118W	24: SE _{1/4} SE _{1/4} SE _{1/4} SE _{1/4} , SW _{1/4} SW _{1/4} NE _{1/4} NW _{1/4} , NE _{1/4} NW _{1/4} NE _{1/4} NW _{1/4}	Trail segment has either been visually or physically impacted by previous construction activities.	Clearance except for areas where trail ruts parallel existing crown and ditch road. Ruts must be avoided.
			13: SW _{1/4} SE _{1/4} SE _{1/4} SW _{1/4} , SE _{1/4} SW _{1/4} SE _{1/4} NW _{1/4} , NW _{1/4} NW _{1/4} NE _{1/4} NW _{1/4}	Trail segment has either been visually or physically impacted by previous construction activities.	Clearance except for areas where trail ruts parallel existing crown and ditch road. Ruts must be avoided.
			12: SE _{1/4} SE _{1/4} SW _{1/4} SW _{1/4} , SW _{1/4} SE _{1/4} SW _{1/4} NW _{1/4} , NW _{1/4} NW _{1/4} NW _{1/4} NW _{1/4}	The trail segment exhibits integrity of setting and place.	Avoidance
			11: NE _{1/4} SE _{1/4} SE _{1/4} NE _{1/4} , SE _{1/4} SE _{1/4} NE _{1/4} NW _{1/4} , SW _{1/4} NW _{1/4} NW _{1/4} NW _{1/4}	The trail segment exhibits integrity of setting and place.	Avoidance
			10: SE _{1/4} NE _{1/4} NE _{1/4} NE _{1/4} , NW _{1/4} NE _{1/4} NE _{1/4} NE _{1/4}	The trail segment exhibits integrity of setting and place.	Avoidance
			3: SW _{1/4} SE _{1/4} SE _{1/4} SE _{1/4} , NE _{1/4} SW _{1/4} SE _{1/4} SW _{1/4} , NW _{1/4} SW _{1/4} SW _{1/4} SW _{1/4}	The trail segment exhibits integrity of setting and place.	Avoidance
			4: NE _{1/4} SE _{1/4} SE _{1/4} SE _{1/4} , NW _{1/4} NW _{1/4} NW _{1/4} NE _{1/4}	The trail segment exhibits integrity of setting and place.	Avoidance
Little Muddy Creek Variant					

Table 3. Continued.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work
Ridge Variant	T19N	R118W	4 :	NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	Construction of powerline and access road has obliterated all traces of the trail.
Chicken Creek Variant			4 :	NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment exhibits integrity of setting and place.
Ridge Variant			9 :	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Construction of the powerline and access road has obliterated all traces of the trail.
Chicken Creek Variant			8 :	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	Construction of the powerline and access road has obliterated all traces of the trail.
Ridge Variant			7 :	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	Construction of the powerline and access road has obliterated all traces of the trail.
Chicken Creek Variant			5 :	SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.
Ridge Variant			6 :	SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.
Ridge Variant			6 :	SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.
Ridge Variant			33 :	SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.
Ridge Variant	T20N	R118W			
Ridge Hollow Variant					
Little Muddy Creek Variant					

Table 3. Continued.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work
Little Muddy Creek Variant	T20N	R118W	32: SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.	Avoidance
			29: SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.	Avoidance
			30: NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place. The grave marker was found in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ of this section.	Avoidance
Chicken Creek Variant	T19N	R119W *	1: SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.	Avoidance
Road Hollow Variant			1: NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.	Avoidance
Chicken Creek Variant			* 2: NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.	Avoidance
			* 3: SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.	Avoidance
Ridge Variant			12: SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Construction of the power-line and access road have removed all traces of the trail.	Clearance
			* 11: SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$	Construction of the power-line and access road have removed all traces of the trail.	Clearance

Table 3. Continued.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work
Chicken Creek Variant	T19N	R119W *	10: NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	The trail segment exhibits integrity of both setting and place.	Avoidance
Ridge Variant		10: NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$	Construction of the power-line and access road has removed all traces of the trail.	Clearance	
Chicken Creek Variant		* 9: SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	The trail segment exhibits integrity of place.	Clearance recommended adjacent to trail. The trail itself cannot be impacted.	
Ridge Variant		9. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$	Construction of the power-line and access road has removed all traces of the trail.	Clearance	
Chicken Creek Variant		* 8: SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment exhibits integrity of place.	Clearance recommended adjacent to trail. The trail itself cannot be impacted.	
		7: NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$	Trail segment exhibits integrity of place.	Clearance recommended adjacent to trail. The trail itself cannot be impacted.	
Divide Segment		7: SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities	Clearance recommended except where crown and ditch road parallels ruts. Ruts must be avoided.	
Ridge Variant		16: NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Construction of the power-line and access road has removed all traces of the trail.	Clearance	
		17: SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	Construction of the power-line and access road has removed all traces of the trail.	Clearance	

Table 3. Continued.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work
Ridge Variant and Divide Segment	T19N	R119W	18: SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Clearance recommended except where crown and ditch road parallels existing ruts. Ruts must be avoided.
Divide Segment Bear River Divide ridge top		6:	SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Clearance recommended except where crown and ditch road parallels existing ruts. Ruts must be avoided.
Bridger Creek		6:	SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$	Trail segment exhibits both integrity of setting and place.	Avoidance
Little Muddy Creek	T20N	R119W *	25: NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment exhibits integrity of place and setting up to NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ where it has either been visually or physically impacted by the salting and grazing of cattle.	Avoidance of areas which exhibit integrity of place and setting.
Little Muddy Creek		*	26: NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Avoid areas where intact trail remnants are evident.
	*	23:	SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Avoid areas where intact trail remnants are evident.
	*	22:	NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	Trail segment has either been visually or physically impacted by previous construction activities.	Avoid areas where intact trail remnants are evident.
Road Hollow		*	36: SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	The segment exhibits integrity of both setting and place.	Avoidance

Table 3. Continued.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work	
Road Hollow Variant	T20N	R119W	* 35: NE _{1/4} SE _{1/4} SE _{1/4} , NE _{1/4} SE _{1/4} SW _{1/4} , NW _{1/4} NNW _{1/4} NNW _{1/4} SW _{1/4}	The segment exhibits integrity of setting and place.	Avoidance	
					Avoidance	
			* 34: NE _{1/4} NE _{1/4} SE _{1/4} , NE _{1/4} SE _{1/4} SEANW _{1/4} , NE _{1/4} NE _{1/4} NNW _{1/4}	The segment exhibits integrity of setting and place.	Avoidance	
					Avoidance	
			* 27: SE _{1/4} SE _{1/4} SW _{1/4} SW _{1/4} , SW _{1/4} NNW _{1/4} NNW _{1/4} SW _{1/4} , NW _{1/4} SW _{1/4} SW _{1/4} NNW _{1/4} , NW _{1/4} NNW _{1/4} NNW _{1/4} SW _{1/4}	The segment exhibits integrity of setting and place.	Avoidance	
					Avoidance	
			* 28: SW _{1/4} NE _{1/4} SE _{1/4} SE _{1/4} , NE _{1/4} NE _{1/4} SE _{1/4} , NE _{1/4} SE _{1/4} NE _{1/4} , NE _{1/4} NE _{1/4} NE _{1/4}	The segment exhibits integrity of setting and place.	Avoidance	
					Avoidance	
			* 22: SW _{1/4} SW _{1/4} SW _{1/4} SW _{1/4} , SE _{1/4} SW _{1/4} SW _{1/4} NNW _{1/4} , SW _{1/4} NNW _{1/4} NNW _{1/4} NNW _{1/4}	The segment exhibits integrity of setting and place.	Avoidance	
					Avoidance	
North Bridger Creek (Sand Knoll) Variant		* 21: SE _{1/4} NE _{1/4} NE _{1/4} NE _{1/4} , NE _{1/4} NE _{1/4} NE _{1/4} NE _{1/4}	The trail segment exhibits integrity of setting and place.	The trail segment exhibits integrity of setting and place.	Avoidance	
					Avoidance	
			* 16: SE _{1/4} SE _{1/4} SE _{1/4} SE _{1/4} , SW _{1/4} SE _{1/4} SW _{1/4} NE _{1/4} , SW _{1/4} SW _{1/4} NNW _{1/4} NNW _{1/4}		Avoidance	
					Avoidance	
			17: SE _{1/4} SE _{1/4} NE _{1/4} NE _{1/4} , NW _{1/4} NNW _{1/4} NE _{1/4} NE _{1/4} , NE _{1/4} NNW _{1/4} NNW _{1/4} NE _{1/4}	The trail segment exhibits integrity of setting and place.	Avoidance	
					Avoidance	
			8: SW _{1/4} SW _{1/4} SW _{1/4} SE _{1/4} , SW _{1/4} NNW _{1/4} NNW _{1/4} SW _{1/4}	The trail segment exhibits integrity of setting and place.	Avoidance	
					Avoidance	

Table 3. Continued.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work
North Bridger Creek (Sand Knoll) Variant	T 20N	R 119W	7:	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$	Avoidance
			18:	NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Avoidance
Divide Segment			31:	NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$	Clearance recommended except where crown and ditch road parallels existing ruts. Ruts must be avoided.
Bridger Creek Variant			31:	NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	Avoidance
Bridger Creek north branch Variant			31:	SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$	Avoidance
Bridger Creek north branch Variant			30:	SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	Avoidance
Divide Segment			*	32: NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	Clearance except for areas where trail ruts parallel existing crowned and ditched road. Ruts must be avoided.
			*	29: SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$	Segment has either been visually or physically impacted by previous construction activities.
			*	28: NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	Segment has either been visually or physically impacted by previous construction activities.

Table 3. Continued.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work
Collett Creek Variant	T20N	R119W	17: NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	No primary historical documentation.	Clearance
			8: SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$	No primary historical documentation.	Clearance
*			9: NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	No primary historical documentation.	Clearance
			4: SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	No primary historical documentation.	Clearance
Spring Creek Variant	T19N	R120W	13: SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Potential for intact trail remains to exhibit integrity of setting and place.	Avoid intact trail remains.
Divide Segment			13: SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$	The trail segment has either been visually or physically impacted by previous construction activities.	Clearance except where crown and ditch road parallels existing ruts. Ruts must be avoided.
Spring Creek Variant			14: NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	Potential for intact trail remains exhibiting integrity of setting and place.	Avoid intact trail remains.
			11: SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	Potential for intact trail remains exhibiting integrity of setting and place.	Avoid intact trail remains.
			10: NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$	Potential for intact trail remains exhibiting integrity of setting and place.	Avoid intact trail remains.

Table 3. Continued.

Trial Segment	Township	Range	Section	Condition of trail	Recommendations for future work
Spring Creek Variant	T19N	R120W	3 :	SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NNW $\frac{1}{4}$ SW $\frac{1}{4}$	Avoid intact trail remains.
			4 :	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NNW $\frac{1}{4}$ SW $\frac{1}{4}$	Avoidance
North Bridger Creek Variant	T20N	R120W	13 :	SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ NNW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	Avoidance
North Bridger Creek Variant			14 :	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$	Avoidance
			23 :	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	Avoidance
Bridger Creek north branch			25 :	SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$	Avoidance
			36 :	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$	Avoidance
Bridger Creek Variant			36 :	NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$	Avoidance
Bridger Creek north branch			35 :	NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	Avoidance
			26 :	NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$	Avoidance

Table 3. Continued.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work	
Bridger Creek Variant	T20N	R120W	26:	SW _{1/4} SE _{1/4} SE _{1/4} NE _{1/4} , NW _{1/4} SE _{1/4} NE _{1/4} SW _{1/4} , SW _{1/4} NW _{1/4} SW _{1/4} NW _{1/4}	Avoidance	
			27:	NE _{1/4} NE _{1/4} SE _{1/4} NE _{1/4} , NW _{1/4} NE _{1/4} NE _{1/4} NE _{1/4}	Avoidance	
North Bridger Creek		22:	SE _{1/4} SE _{1/4} NE _{1/4} NE _{1/4} , SE _{1/4} NW _{1/4} NE _{1/4} SE _{1/4} , SW _{1/4} NE _{1/4} NW _{1/4} SW _{1/4} , SW _{1/4} SW _{1/4} SW _{1/4} NE _{1/4}	The segment exhibits integrity of setting and place.	Avoidance	
			15:	SW _{1/4} SE _{1/4} SE _{1/4} SE _{1/4} , NW _{1/4} NE _{1/4} NE _{1/4} NW _{1/4} , SW _{1/4} SW _{1/4} NW _{1/4} SW _{1/4}	The segment exhibits integrity of setting and place.	Avoidance
Bridger Creek Variant		22:	SW _{1/4} SE _{1/4} SE _{1/4} SE _{1/4} , NW _{1/4} NE _{1/4} NE _{1/4} SE _{1/4} , NW _{1/4} NE _{1/4} NE _{1/4} NW _{1/4}	The segment exhibits integrity of setting and place.	Avoidance	
			16:	SE _{1/4} NE _{1/4} NE _{1/4} SE _{1/4} , SE _{1/4} NE _{1/4} SE _{1/4} NW _{1/4} , NW _{1/4} NE _{1/4} NW _{1/4} NW _{1/4}	The segment exhibits integrity of setting and place.	Avoidance
North Bridger Creek Variant	T20N	R119W *	9:	SW _{1/4} SE _{1/4} SW _{1/4} SW _{1/4} , SE _{1/4} SE _{1/4} SW _{1/4} NW _{1/4} , NE _{1/4} NW _{1/4} NW _{1/4} NW _{1/4}	The segment exhibits integrity of setting and place.	Avoidance
			16:	NW _{1/4} SW _{1/4} SW _{1/4} NE _{1/4} , SW _{1/4} SE _{1/4} SW _{1/4} SW _{1/4} , SW _{1/4} SW _{1/4} SW _{1/4} SW _{1/4}	The segment has been eroded by the action of North Bridger Creek.	Clearance recommended in erosional areas. Avoid any intact trail remains.
North Bridger Creek Variant		17:	SE _{1/4} SE _{1/4} SE _{1/4} SE _{1/4} , NE _{1/4} NW _{1/4} SE _{1/4} SE _{1/4} , NW _{1/4} NE _{1/4} NE _{1/4} SE _{1/4} , SE _{1/4} SE _{1/4} SE _{1/4} NW _{1/4} , NW _{1/4} NW _{1/4} SW _{1/4} NW _{1/4}	The segment has been eroded by the action of North Bridger Creek.	Clearance recommended in erosional areas. Avoid any intact trail remains.	

Table 3. Concluded.

Trail Segment	Township	Range	Section	Condition of trail	Recommendations for future work
North Bridger Creek Variant (continued)	T20N	R120W	18: NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$,NW $\frac{1}{4}$ SW $\frac{1}{4}$,	The segment has been eroded by the action of North Bridger Creek.	Clearance recommended in erosional areas. Avoid any intact trail remains.
			13: NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$,	The segment has been eroded by the action of North Bridger Creek.	Clearance recommended in erosional areas. Avoid any intact trail remains.

Key: * Sections in the Road Hollow Unit
1 Muddy Creek refers to the major drainage east of the junction of Little Muddy Creek and Chicken Creek

of these features. However, once past a stock pond or erosional surface, the trail continues. Generally trail segments of this nature have been noted on historic maps or in diaries and it is known the trail passed through the area. The trail alternates from good condition to poor condition but follows the original trail route and thus warrants the classification of integrity of place.

Segments of the Oregon Trail classified as having visual or physical impact exhibit some trail remains, but usually these are directly adjacent to an existing crowned and ditched road. In most instances, erosion and/or construction activities have damaged the trail to some degree. Adjacent to a modern road system, these ruts are only in fair condition.

The category of "trail segments that are no longer evident," covers several factors. The most obvious are trail remains that have been completely destroyed by erosion or construction. In these areas there are no trail remains evident. Another area of consideration is road remains that appear on GLO maps but that cannot be verified as being trail remains using the archival records. For example, the trail diaries for the Bear River Divide Segment give a distinct impression of an east to west route crossing the divide. There is no indication of trails traveling north or south along the Bear River Divide for any extended distance. Instead, the diaries report traveling up the headwaters then dropping over the divide to the Bear River. The "trail segments that are no longer evident" category also includes ranch roads currently in use that cannot be considered part of the Oregon Trail system.

The present condition of the trail was considered when mapping and recording the various routes along the Bear River Divide. In addition, an attempt was made to confirm the authenticity of each segment through either archival records, aerial photographs, or historic maps. Actual recording of the trail segment was based on the intact remains located in the field. The nine possible trail variants inventoried were then evaluated as to whether they possessed integrity of setting and place, integrity of place, or had been in some way impacted. Each of these segments were evaluated on their own merits and are described individually.

Little Muddy Variant

The most common reference to a drainage in the historic journals describing the Bear River Divide is Muddy Creek or Little Muddy Creek (Figure 8). The headwaters of this creek lie east of the Bear River Divide and are fed by these tributaries: Little Muddy Creek, Chicken Creek, and Road Hollow. Little Muddy, the northernmost tributary, gives the stream its present-day name. Of this northernmost tributary, Fremont wrote in his 1843 diary:

At noon we halted at the last main fork of the creek [Muddy Creek], at an elevation of 7,200 feet, and in latitude, by observation 41 [degrees] 39'45"; and in the afternoon continued on the same excellent road, up the left or northern fork of the stream, towards its head, in a pass which the barometer placed at 8,230 feet above the sea (Jackson and Spence 1970:469).

The northernmost fork of this "stream" is what is now called Little Muddy Creek (Figure 8). The fork to the south is currently called Chicken Creek. James Clyman in his 1844 journal also refers to following the "north branch of Muddy." He refers to finding a "fine spring of water" at the head of this branch (Camp 1928:94-95). Springs are still evident at the head of Little Muddy Creek, and the flowing water has eroded away portions of the trail. Numerous diaries also mention the springs near the west edge of the Bear River Divide (See pp. 2.21, this report).

Currently there are trail remains evident along Little Muddy Creek. In Section 4, T19N, R118W, the Oregon Trail divides (See Appendix B). In the NE $\frac{1}{4}$ of the section, a traveler has two options. One is to turn west on Chicken Creek, the other is to continue north along Little Muddy Creek. From this junction in the NW $\frac{1}{4}$ of Section 4 to the center of Section 25, T20N, R119W, there are excellent trail remains evident along the valley floor. In places, tributary drainages have cut through segments of the trail; but there is little downcutting, and the trail remains are evident on both sides of the wash. In the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 22 the Little Muddy Segment ties into the Divide Segment, and this serves as the western end of this trail variant.

In addition to the trail ruts noted along the valley floor, a grave marker was found adjacent to the trail in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 30, T20N, R119W. The marker is from locally available sandstone shaped to form a headstone (Appendix A). There appears to have been some vandalism to the stone in the form of carved initials. The letters R.I.P. (rest in peace) are carved on one side of the stone. However, neither lichens nor moss has grown into the face of the letters, and most of the stone is covered with lichens. The tombstone has been broken at the base. There is no evidence of a grave adjacent to the marker, so it is possible the stone has been moved. Nonetheless, the proximity of this marker to the trail and the fact that numerous people were buried along the length of the Oregon Trail suggests these two features are related.

From the middle of Section 25, T20N, R119W, west to the Bear River Divide, portions of the trail have been eroded away. Although there are short segments that exhibit trail remains, the majority of the trail from Section 25 west to Section 22 has been destroyed. There are a number of springs in the upper reaches of this valley that have contributed to this erosion. To take advantage of this readily available supply of water, spring enhancement projects and stock ponds have been constructed. This has resulted in large segments of the trail being flooded by the dams or eroded away by increased flow from the springs. As a result of available water, cattle congregate and churn up the areas surrounding the ponds and springs, which creates additional damage to the trail. In addition to these factors, lateral side cutting of Little Muddy Creek has resulted in large segments of the trail being eroded away where the valley constricts in Sections 22 and 26, T20N, R119W.

At the extreme northwest end of the Little Muddy Variant, BLM base maps show possible trail remains traveling north from the main trail stem in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 22, T20W, R119W (Appendix B). According to the BLM maps, this possible route extends north to the Bear River Divide and swings westward in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 23. At this point, another possible road continues north for approximately one-half

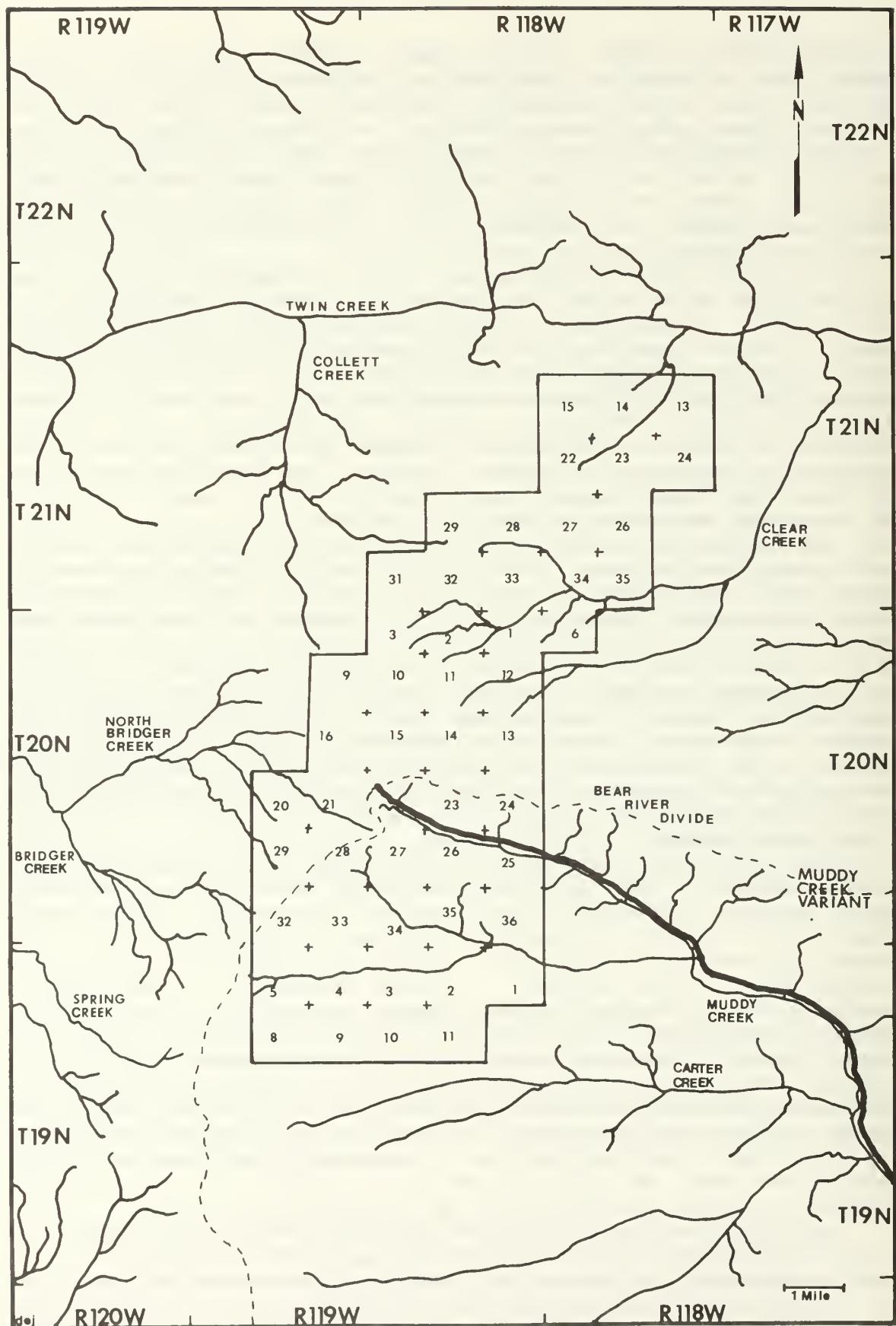


Figure 8. Map showing the Little Muddy Creek Variant in Exxon's Road Hollow Unit.

mile then turns westward and follows an unnamed ephemeral drainage through the center of Section 25, T20N, R119W, before rejoining the main trail in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 16, T20N, R119W. When the National Park Service (1982) compiled its Oregon National Historic Trail study, it did not show these variations. As part of our field inventory, this area was surveyed for trail remains to determine whether intact trail remains exist. In Section 22, erosion and modern blading have eliminated any remains that might have existed. Currently there is a two-track in the NE $\frac{1}{4}$ of Section 22, but it ends before reaching Little Muddy Creek. More than likely this two-track served as an access road for hunters and/or sheepherders to a point overlooking Little Muddy Creek, but it does not travel into the drainage itself. The purported trail remains in the N $\frac{1}{2}$ of Section 22, the SW $\frac{1}{4}$ of Section 14, the center of Section 15, and the N $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 16, T20N, R119W, should not be considered part of the trail system. (Ruts clearly appear in the SE $\frac{1}{4}$ of Section 16, but these are part of the main stem to the Bear River; see Bridger Creek and Sand Knoll Segments.)

Overall the Little Muddy Segment is in excellent condition. From Section 4, T19N, R118W, to the center of Section 23, T20N, R118W, the trail exhibits integrity of setting and place. Future projects should avoid any earth-disturbing activity in this area, and visual intrusions should be an adequate distance away from the trail to avoid impacting the setting. From Section 25 to the terminus atop the Bear River Divide, the trail has been impacted by erosion and the creation of stock ponds. Only small segments of the trail are still evident, and they run only for short distances. These remains exhibit integrity of place, but the setting has been impacted. Future projects should avoid the intact remains, and decisions as to whether earth-disturbing activities can be undertaken should be made on a case by case basis. Where intact ruts are evident, the trail segment should be avoided.

Chicken Creek Variant

Trail diaries do not give specific information regarding Chicken Creek (Figure 9). Most diaries refer to following Muddy Creek to its headwaters, then crossing the divide. This reference to traveling up the headwaters implies that one of three drainages could be followed to reach the ridge crest. The three drainages that act as the headwaters of Muddy Creek are Little Muddy Creek, Chicken Creek, and Road Hollow Creek. Each of these drainages can be followed to the top of the Bear River Divide. Therefore, references to following Muddy Creek to its headwaters could refer to any one of these three tributaries. More than likely, the volume of traffic, the availability of water, and the presence of grass for livestock served as the reason for selecting one route over another. The presence of intact ruts adjacent to Chicken Creek suggests that this creek was used by emigrants to reach the crest of the Bear River Divide.

This variant originates in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 4, T19N, R118W. From that point, it travels west along Chicken Creek. The trail is evident along the north side of the drainage. In the NW $\frac{1}{4}$ of Section 6, T19N, R118W, Road Hollow Creek flows into Chicken Creek. At this confluence the trail splits. One variant travels northwest from this point along Road Hollow. The other variant continues westerly along Chicken Creek (Figure 9, Appendix B). From the dividing point in

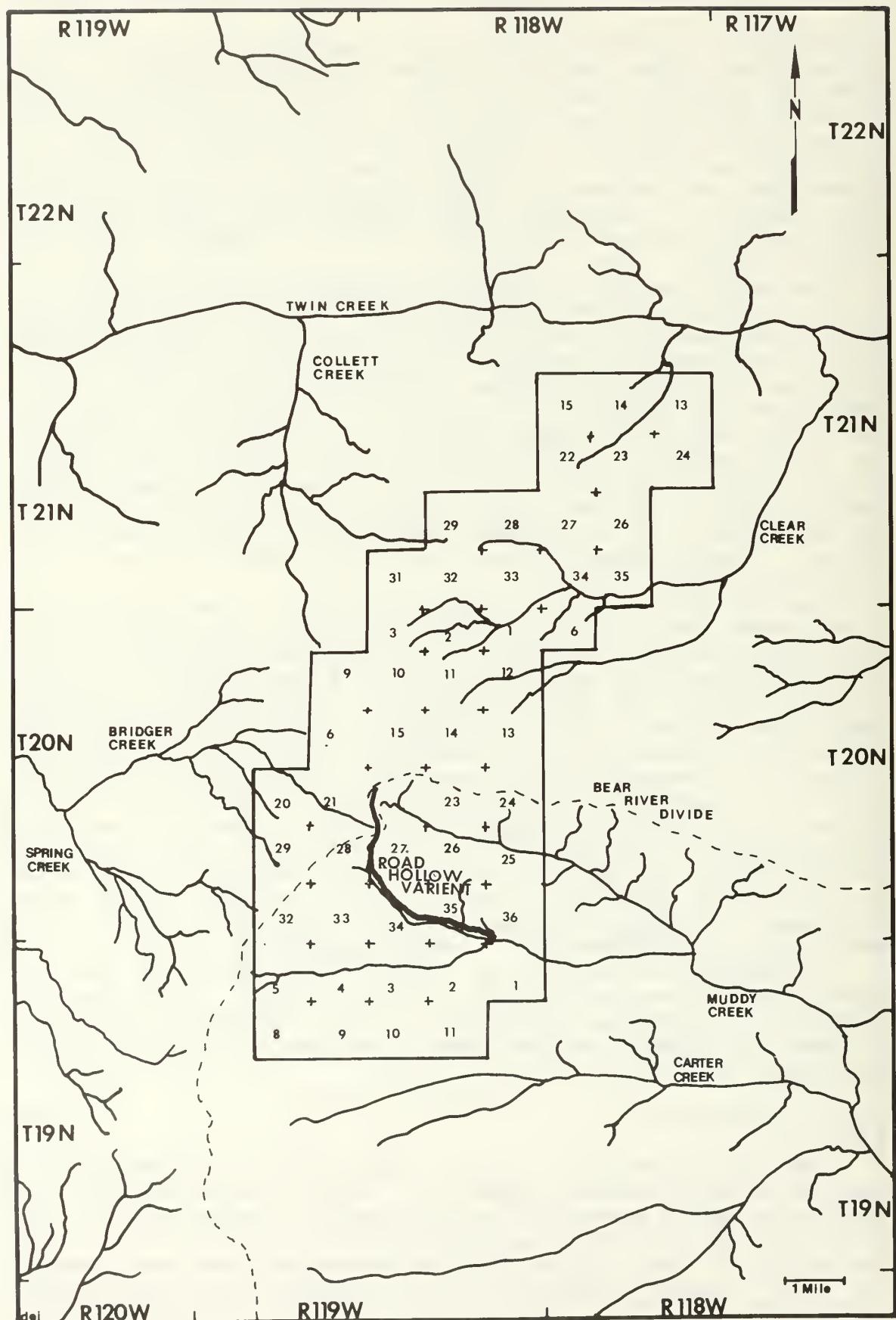


Figure 10. Location of the Road Hollow Variant along the Bear River Divide Segment of the Oregon Trail. For the entire length of this variant, trail remains are evident.

This segment follows Road Hollow Creek west to the Bear River Divide. Continuing in a westward direction from Section 6, the trail goes through the NE $\frac{1}{4}$ of Section 1, T19N, R119W, then into the SW corner of Section 36, T20N, R119W. The trail crosses the southern half of Section 35 before turning almost directly north in the center of Section 34, T20N, R119W. The trail cuts the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 27 and continues north through the eastern half of Section 28 where the trail joins the Divide Segment in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 28, T20N, R119W (Figure 10, Appendix B).

Lester Hulin, who crossed the Bear River Divide in August of 1847, makes mention of following a dry branch 4 miles to the top of the Divide (Hulin 1847:15-16). His journal states ". . . soon left Muddy then up a dry branch 4 ms to the divide across the Mt . . ." (Ibid.) From the confluence of Road Hollow and Chicken Creek, the distance to the Bear River Divide is approximately 4 miles. At the time of our survey, in 1985, Road Hollow was dry. The other two drainages east of the divide, Chicken Creek and Little Muddy, usually contain water throughout the year. The description of leaving "Muddy," which Chicken Creek feeds directly, and traveling up a dry branch might refer to the Road Hollow Variant. The assumption by Hulin that he was traveling up Muddy is easily understood since it is difficult to determine which stream is the main channel and which is the tributary. Hulin's description does not match any possible route leaving the valley of Little Muddy Creek. There are no other ephemeral drainages 4 miles long leading to the Bear River Divide leading off Little Muddy Creek. Therefore, it is likely Hulin followed Road Hollow to the top of the divide.

The Road Hollow Variant is in excellent condition (Figures 11 and 12). For the entire length of the variant, trail ruts that have not been impacted are evident. These ruts are in pristine condition. They have received only minimal impact by erosion and have had no damage by construction activities in the area. With the exception of one oil well and access road in Section 34, T20N, R119W, there have been no visual impacts within the entire Road Hollow Valley. Along its entire length, the Road Hollow variant exhibits integrity of setting and place. It is recommended that future projects avoid both visual and physical impacts to the area adjacent to the trail.

Ridge Variant

The BLM base maps and GLOs show a road along the ridge leaving Muddy Creek in the SE $\frac{1}{4}$ of Section 4, T19W, R118W, and then traveling west through the southern half of the section (Figure 13). The trail then continues through the north half of Section 8 and follows a westerly course to its terminus in the SW $\frac{1}{4}$ of Section 18, T19N, R119W (Figure 13; Appendix B). This variant is termed the Ridge Variant as it follows an interfluvial ridge to the crest of the Bear River Divide.

Of the four trail variants located east of the Bear River Divide, the Ridge Variant is the least well defined route. John Minto's 1849 diary gives a description of crossing the Bear River Divide by following up the Muddy Creek Valley and then, apparently, trailing along a ridge crest to the top of the divide. Although his diary is not conclusive as to how he reached the head of "the Muddy," he claimed the route was "steep and rocky in places" (Minto 1901). The routes up the valleys, though sloped at the western end, are not anything that would seemingly



Figure 11. Oregon Trail ruts in Road Hollow. The view is to the southeast; SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 27, T20N, R118W.



Figure 12. Oregon Trail ruts climbing out of Road Hollow. The view is to the north; SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 27, T20N, R118W.

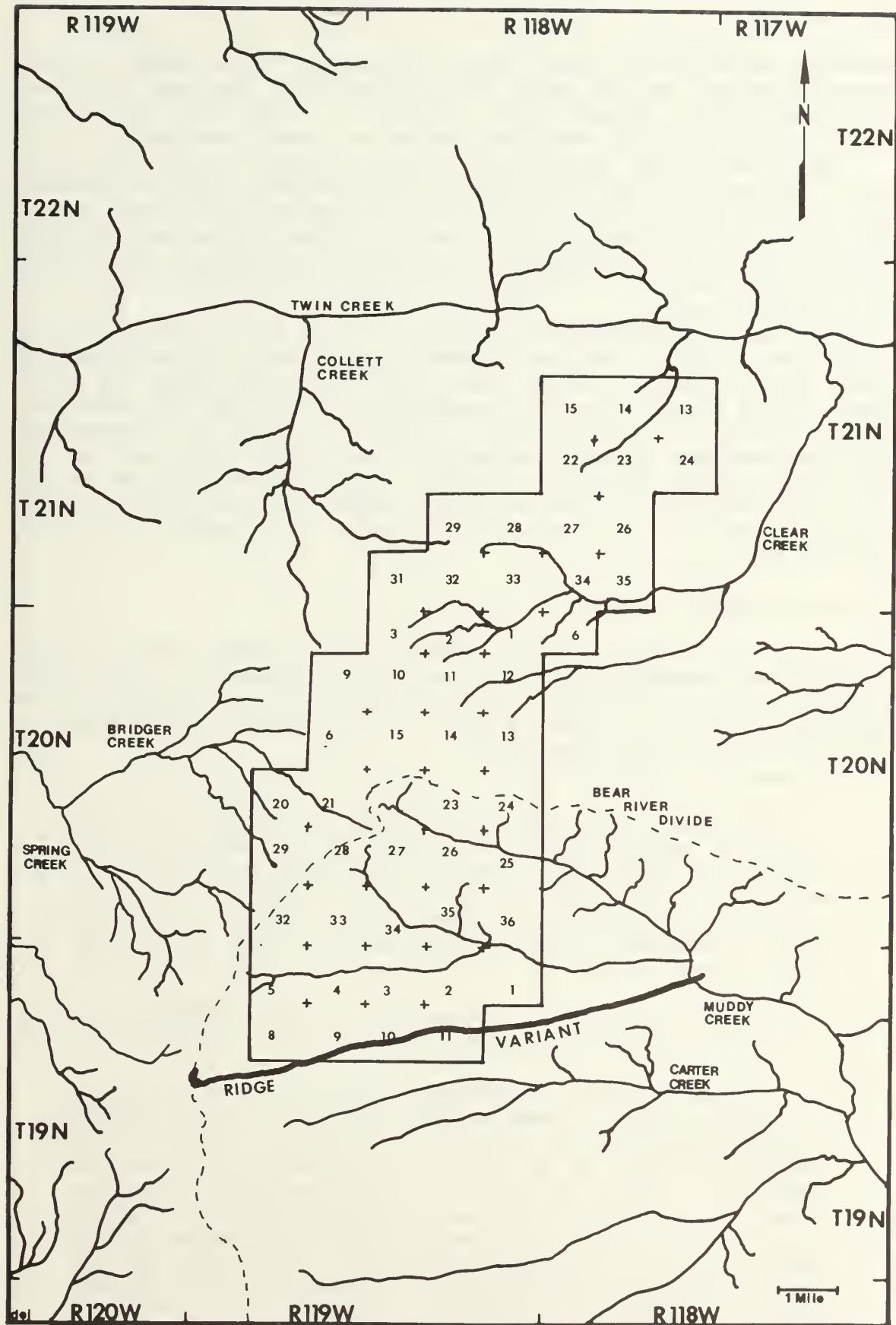


Figure 13. Location of the Ridge Variant east of the Bear River Divide.



Figure 11. Oregon Trail ruts in Road Hollow. The view is to the southeast; SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 27, T20N, R118W.



Figure 12. Oregon Trail ruts climbing out of Road Hollow. The view is to the north; SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 27, T20N, R118W.

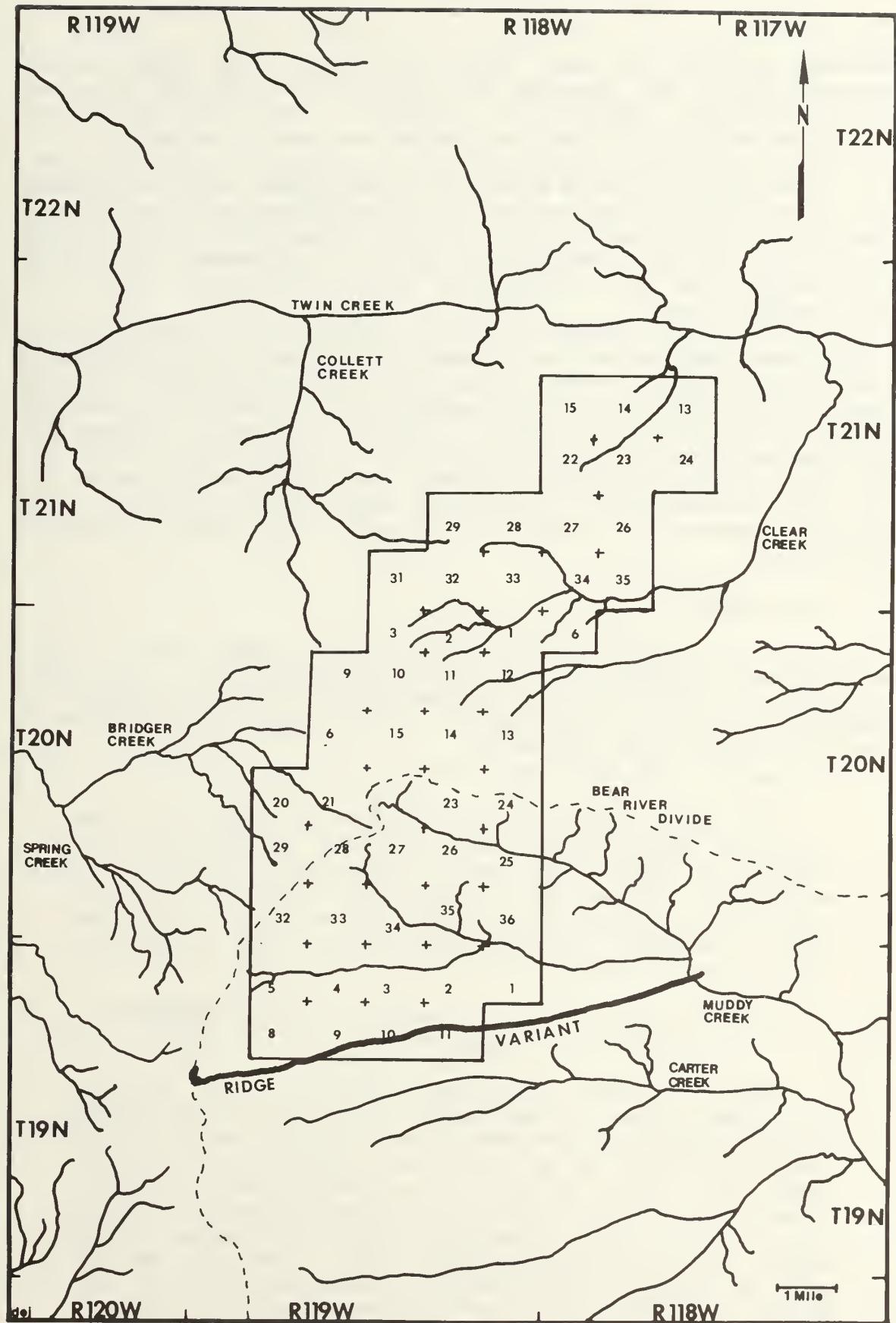


Figure 13. Location of the Ridge Variant east of the Bear River Divide.

seemingly deserve the label "steep and rocky." The Ridge Variant crosses regolith and the grade is continuous, so the term steep and rocky might apply. However, the reference to steep and rocky is not conclusive evidence that the Ridge Variant was used by emigrants.

The Ridge Variant is not specifically mentioned in trail diaries. All of the complete diaries studied for this project refer to traveling up ravines, along stream courses, or to the headwaters of Muddy Creek. There is no specific mention of following a ridge from the east to reach the Bear River Divide. This lack of diary entries suggests that if the Ridge Variant was used by nineteenth century emigrants, it was not a well-traveled route.

The Ridge Variant has been visually impacted by the construction of a high power transmission line adjacent to the trail. In addition, the route seemingly served as an access road when constructing the power line. Use of this road during construction has affected the visual and physical integrity of this route. Currently it does not possess the qualities exhibited by the other variants, and construction activity has adversely impacted this trail variant. For these reasons, we do not feel this variant is a contributing segment of the Oregon Trail. Cultural resource clearance is recommended for future development activities.

The Divide Segment

The Divide Segment serves to connect all the Oregon Trail variants ascending and descending the Bear River Divide (Figure 14). The Divide Segment runs along the crest of the Bear River Divide. It begins in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 18, T19N, R119W, and terminates in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 22, T20N, R119W (Figure 14).

In describing the Bear River Divide, Joel Palmer writes:

The ridge is high, but the ascent is not difficult. From this ridge the scenery is most delightful. In one view is the meanders of Muddy Creek. Two companies with large herds of cattle are winding their way up the valley. The bold mountains on either side are very high and rugged. In front and at a distance of twelve miles is the valley of Big Bear river (Palmer 1847:36)

P. V. Crawford, in 1851, also mentions the Bear River Divide. In his diary entry for July 7, Crawford states:

This is one day of extreme interest. Here our road led up a long ravine of easy ascent to the top of the divide between Green river and Bear river valleys. The divide is very high and when on the divide we look eastward and see the Green river valley in all of its grandeur, with its snowy range, the source of the river trending northward as far as eye can reach, while on the south stands the cluster of high snowy peaks that feed Black river fork of Green river and are known as the Bear River mountains, being the source of that stream; then turn west and see the Bear River valley, with its winding stream coursing its way northward through the valley at about 12 miles distant. But we must go. Our road follows

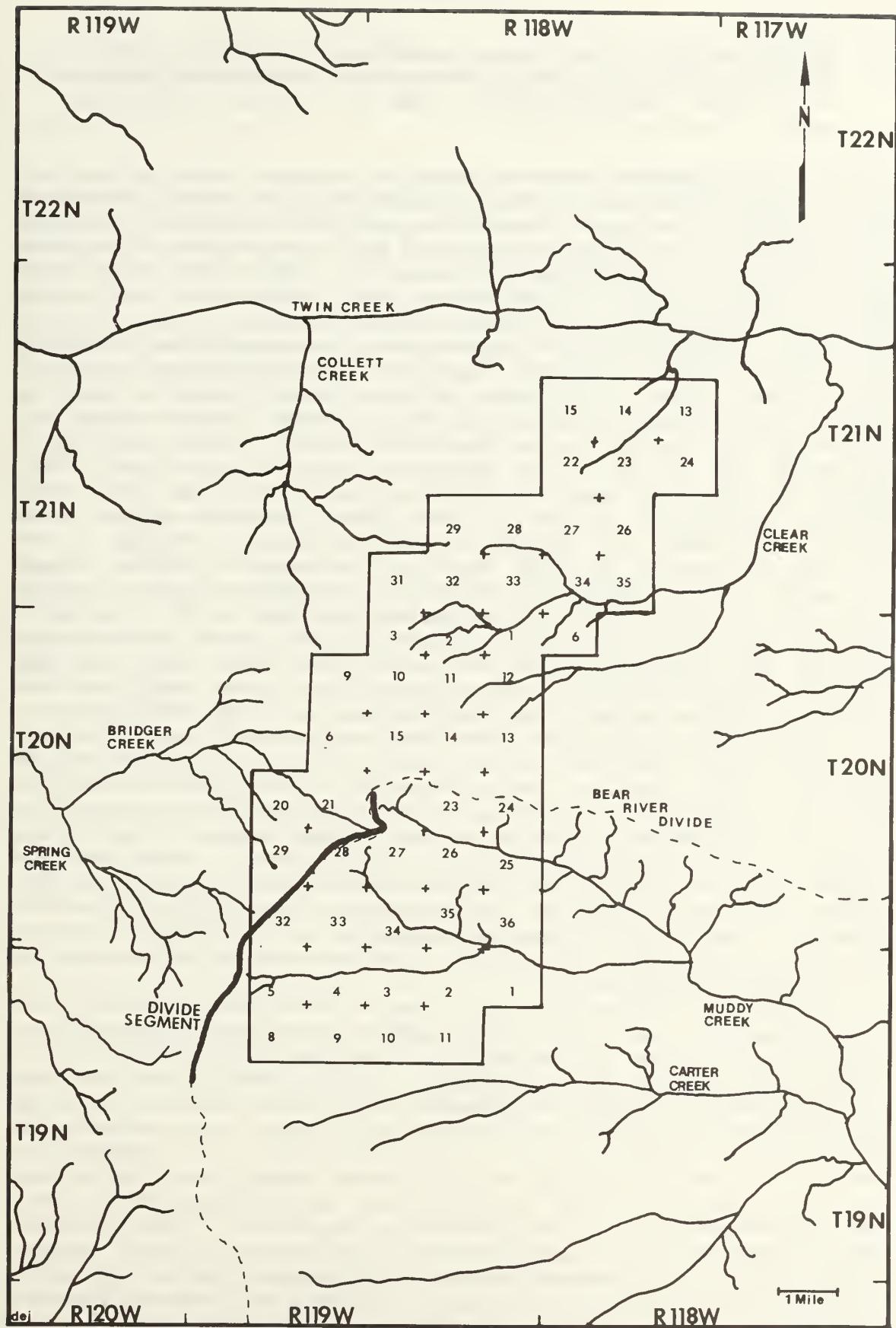


Figure 14. The Divide Segment of the Oregon Trail. This route follows the crest of the Bear River Divide.

the ridge [i.e., Bear River Divide] to the right a short distance, then turns down a steep ridge one and a half miles to a ravine, which we follow down five miles to the open valley (Crawford 1851:149).

The Divide Segment connects the trail variants ascending the east slope of the divide with those descending the west slope. No matter which variant an immigrant chose to use for his crossing of the divide, he would have to pass along a portion of the Divide Segment. The Divide Segment begins in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 18, T19N, R119W, at the point where the Ridge Variant of the Oregon Trail reaches the crest of the divide. From this point, the Divide Segment follows the ridge crest to the north. The Chicken Creek Variant, which ascends Chicken Creek from the east, intersects the Divide Segment in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 7, T19N, R119W. About 1 mile north of the Chicken Creek Variant, the Bridger Creek Variant branches off from the Divide Segment to the west and begins the descent to the Bear River Valley in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 6, T19N, R119W. If the emigrant decided not to descend at this point, the traveler could continue northward along the Bear River Divide. Beginning in Section 6, T19N, R119W, the Divide Segment turns to the northeast. It intersects the Road Hollow Variant in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 28, T20N, R119W. From here, the Divide Segment once again heads in a northerly direction and crosses the head of Little Muddy Creek. In the SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 22, T20N, R119W, the Little Muddy Creek Variant intersects the Divide Segment. The Divide Segment's northern end is located at the point where the trail leaves the Bear River Divide and descends the ridge slope into the North Bridger Creek drainage. This point is in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 22, T20N, R119W.

The Divide Segment has been heavily impacted by construction activities. With the exception of a short section of ruts near the head of Little Muddy Creek, at the northern end of the Divide Segment, no intact portions remain. A bladed, crowned, and ditched road built along the crest of the Bear River Divide has removed large portions of the trail between the segment's southernmost point, where it meets the Ridge Variant, and the point where the Road Hollow Variant intersects it. Between these two points, the Divide Segment of the Oregon Trail lacks integrity, and cultural resource clearance is recommended providing intact sections of the trail remains found adjacent to the crowned and ditched road are avoided.

North of the point where the Road Hollow Variant intersects the Divide Segment, a section of intact ruts still exists. This section of intact ruts is found in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 28, the NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 27, and the W $\frac{1}{4}$ of Section 22, T20N, R119W. These ruts are primarily west of the existing improved road. This section of the trail exhibits both integrity of setting and place, and avoidance is recommended. The trail crosses the improved road in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 22. From this point, the trail moves roughly north and crosses the head of the Little Muddy Creek drainage. The Divide Segment crosses the improved road again in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 22. Once it crosses the road this second time, the Divide Segment becomes the North Bridger Creek Variant as it descends westward down Bridger Creek. Due to the construction of a crowned and ditched road along the crest of the Bear River Divide, large segments of the trail have been destroyed. For this reason, cultural resource clearance is recommended over most of the

Divide Segment. In the areas where intact trail remains parallel this modern road, avoidance of the ruts is required.

Spring Creek Variant

Spring Creek Variant lies south of the Road Hollow Well Field. References to this route are noted on GLO maps and BLM plat maps. It is the southernmost route the emigrants might have used to descend the Bear River Divide (Figure 15). The trail branches off the Divide Segment in Section 18, T19N, R119W, then descends along Spring Creek to where the stream flows into Bridger Creek. At Bridger Creek the Spring Creek Variant rejoins the other variants that descend the Bear River Divide by following the headwaters of Bridger Creek. This junction is located in the NW $\frac{1}{4}$ of Section 16, T20N, R120W, and served as a collecting point for travelers moving northwest to the Bear River.

Unfortunately, little historic documentation regarding this variant is available. Most diarists recording their trip over the Bear River Divide noted traveling up the headwaters of Muddy and then descending along a drainage to the Bear River. The possibility of using the Spring Creek drainage is based on emigrant references to following a drainage west of the divide to the Bear River. The choice of which route to take would depend on grass, water, and where they came up the divide. If a traveler reached the divide via Chicken Creek, the Spring Creek Variant would be one of the best means of descending to the Bear River. Without more specific information, all three of the drainages flowing westward from the divide in the project area are likely candidates for emigrant travel. Either North Bridger Creek, South Bridger Creek, or Spring Creek would have served as good westward routes to the Bear River.

The Spring Creek Variant splits off the Divide Segment in the SW $\frac{1}{4}$ of Section 18, T19N, R119W, and travels northwest in a diagonal direction across Section 13, T19N, R120W. In the NW $\frac{1}{4}$ of Section 13 the trail begins paralleling Spring Creek and from that point descends along the valley to the confluence with Bridger Creek. In the NE $\frac{1}{4}$ of Section 10, T19N, R120W, the trail forks. At this fork the traveler would be able to leave the valley, travel across a ridge, then choose a more southerly drainage to descend the divide. This fork is well outside our project area and was not inventoried as part of this study. The main stem of the Spring Creek Variant travels almost due north from the NE $\frac{1}{4}$ of Section 10 (Appendix B). The variant rejoins the other variants in the NW $\frac{1}{4}$ of Section 16, T20N, R120W.

Since the Spring Creek Variant lies outside the Road Hollow Well Field, this trail was not intensively inventoried. It is felt, however, that there are intact segments of the trail that possess integrity of setting and place. It will be necessary for future projects to take into consideration the possible presence of intact trail remains along Spring Creek.

South Bridger Creek Variant

The South Bridger Creek Variant originates atop the Bear River Divide in the NE $\frac{1}{4}$ of Section 6, T19N, R119W (Figure 16). The trail follows the South Fork of Bridger Creek to its confluence with the North Fork of Bridger Creek and continues its westward descent along the main stem of Bridger Creek. Along the entire length of this variant, intact

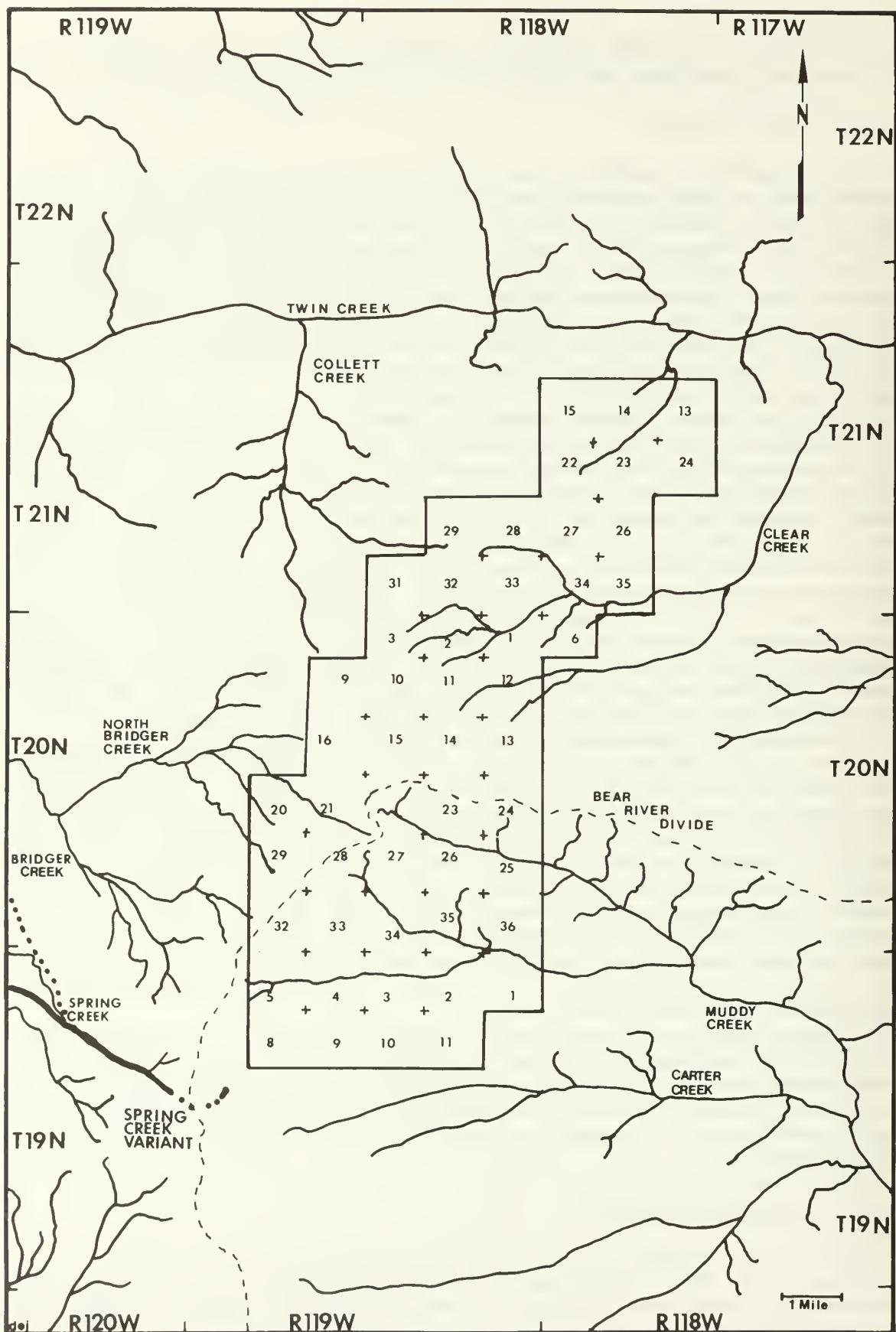


Figure 15. Spring Creek Variant south of the Road Hollow Well Field. The variant leaves the Divide Segment in the SW $\frac{1}{4}$ of Section 18, T19N, R119W, and travels northwest down Spring Creek.

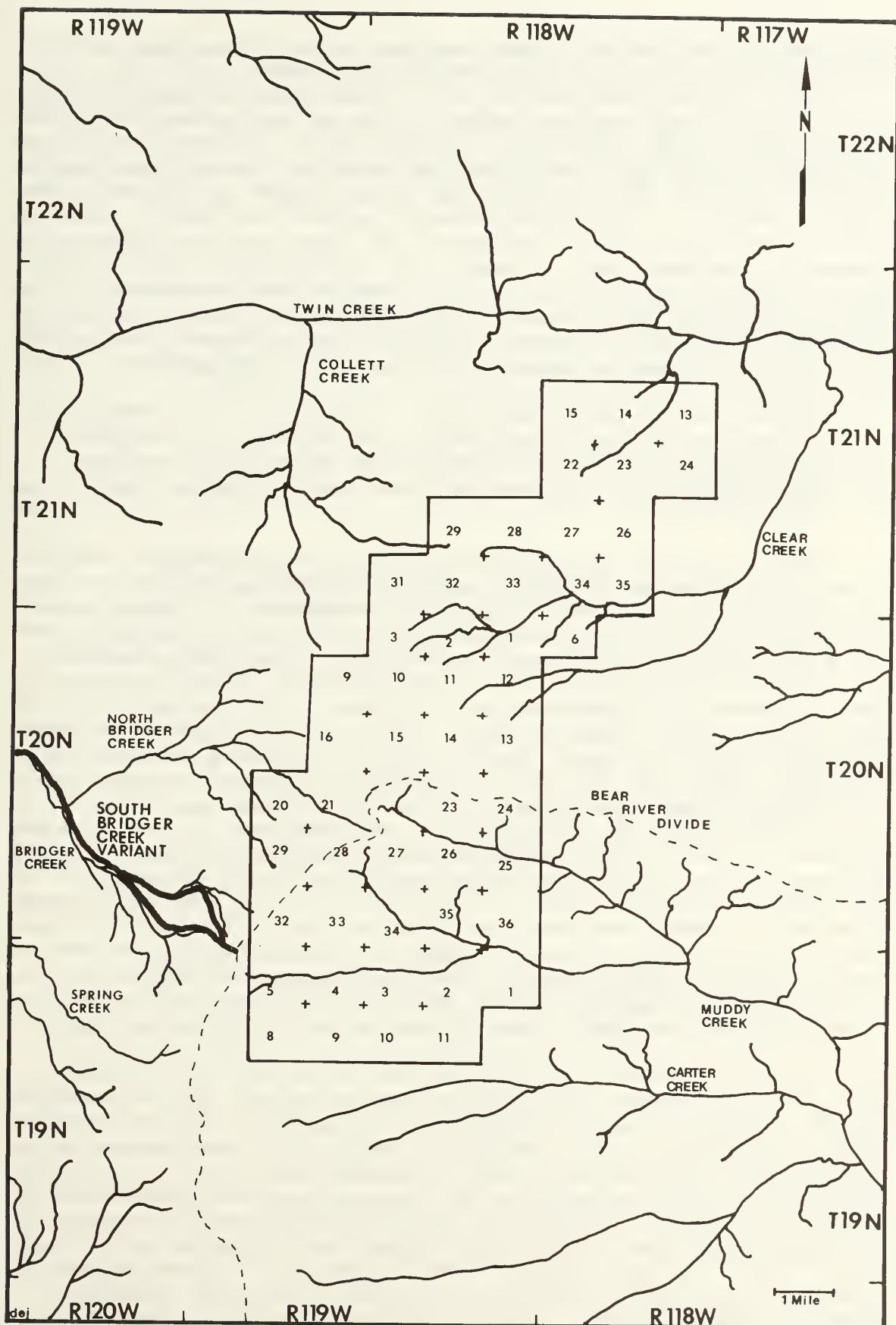


Figure 16. Location of the South Bridger Variant. The split in the trail allowed travelers to descend either the north or south side of Bridger Basin.

trail remnants were noted. There has been no earth-disturbing activity in this area, and the trail is in pristine condition.

Trail diaries often mention the descent westward over the Bear River Divide. Most diarists refer to the springs located along the western side of the divide and at least in one instance there is a reference to following a "circuitous and dangerous" route. John Howell, in his 1845 diary, mentions traveling down a creek to the Bear River (Howell 1846:146). Although he does not mention the creek by name or describe the surrounding topography, he does mention following a drainage to the Bear River. Clyman's 1849 diary records springs located "on the left of the road" as they descended the Bear River Divide (Clyman 1844:95). In a report for a 1849 military expedition, the condition of the trail is noted by Colonel Loring, who was responsible for providing information about the trip west. Loring reports:

crossed the dividing ridge between the waters of the Pacific and the waters of the Great Basin. Its ascent is gradual and the descent into the Bear River Valley is easy. At its base the road becomes circuitous and dangerous for wagons (Settle 1940:335-336).

Mentioning that the route was indirect or circuitous, possibly refers to a detour or roundabout means of descending the divide. This detour might have been needed to avoid switchbacks or swampy ground. Wagons were not suited for tight turns. If a turn was too tight, there was a possibility of the wagon overturning. Often when going down a steep grade, wagoneers tried to lock the wheels or lowered the wagon by rope. This meant the wagon went straight down a hill instead of cutting back and forth like modern vehicles. By avoiding cutbacks, the chance of overturning the wagon was minimized. Loring's mention of a circuitous route might have been in reference to avoiding steep descents or areas where wagons had to travel along switchbacks.

Although South Bridger Creek is not mentioned by name in the diaries, the fact that the emigrants descended along drainages suggests that one of the streams flowing westward from the divide was used to reach the Bear River. Most of the journals used in this study report traveling up Muddy Creek over the divide and down a stream on the west side of the divide. There are exceptions, but generally the diaries record a fairly direct, east to west route over the divide. If the Chicken Creek drainage was used by emigrants, the south fork of Bridger Creek would make an ideal means of descending the divide to the Bear River.

The South Bridger Creek Variant begins in the NE $\frac{1}{4}$ of Section 6, where the trail leaves the Divide Segment and starts its northwesterly descent. There are a few deviations in the route and some parallel ruts. The trail splits in the SW $\frac{1}{4}$ of Section 31. One portion of the trail travels along the north side of Bridger Basin while the other leg travels along the southern side of this basin. The trail comes back together in the SE $\frac{1}{4}$ of Section 26, T20N, R120W (Figure 16; Appendix B). The trail follows the South Fork of Bridger Creek to where North Bridger Creek flows into this stream. The confluence of these streams is located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 22, T20N, R120W. The confluence is where the South Bridger Creek Variant and the North Bridger Creek Variant merge. The Oregon Trail continues in a northerly direction

along Bridger Creek until it reaches the Bear River Valley. Once in the Bear River Valley, the travelers left Bridger Creek and moved northward towards present-day Cokeville.

The trail remains along the southern fork of Bridger Creek are in excellent condition. These pristine trail ruts should be avoided by future projects in the area. Care should be taken not to create any visual or physical impacts along this variant.

North Bridger Creek Variant

The North Bridger Creek Variant is the northernmost of the three routes which descend along the west slope of the Bear River Divide (Figure 17). The variant originates at the crest of the Rear River Divide approximately $\frac{1}{2}$ mile north of the head of Little Muddy Creek. This point is located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 22, T20N, R118W (Figure 17).

Fremont, in his journal, noted that the Bear River Divide was a good pass. In describing the descent, he said they followed a ridge spur a short distance down the western side of the divide. While on this spur he noted:

Some thickets of willow in the hollows below deceived us into the expectation of finding a camp at the foot of the mountain; but we found them without water, and continued down a ravine [Bridger Creek], and encamped about dark at a place where springs again began to make their appearance . . . (Jackson and Spence 1970:417).

Fremont's reference to following a ridge spur and observing the willows below might refer to following Sand Knoll. Since he apparently ascended Little Muddy Creek, dropping over the ridge onto Sand Knoll would have been the shortest route west. Fremont makes no mention in his diary of turning north or south along the ridge, so it appears he dropped directly over the ridge into the Bear River Valley.

Crawford in 1851 also provided a good description of the route down the Bear River Divide.

Our road follows the ridge [Bear River Divide] to the right a short distance, then turns down a steep ridge one and a half miles to a ravine which we follow down five miles to the open valley. Here we found a large spring of pure water, sufficient for all of us and our cattle (Crawford 1851:149).

Possibly Crawford followed Road Hollow then descended down North Bridger Creek. Presently trail remains are evident on the ridge north of North Bridger Creek. By following this ridge for about a mile and turning south about $\frac{1}{2}$ mile, the upper end of North Bridger Creek can be reached. Locating Crawford's route precisely is problematical because he does not mention place names. Yet the distances and description he does provide suggests he traveled North Bridger Creek via what is currently called Sand Knoll.

The North Bridger Creek Variant begins at the northern end of the Divide Segment. From the crest of the Bear River Divide, the North Bridger Creek Variant runs in a northwesterly direction as it descends

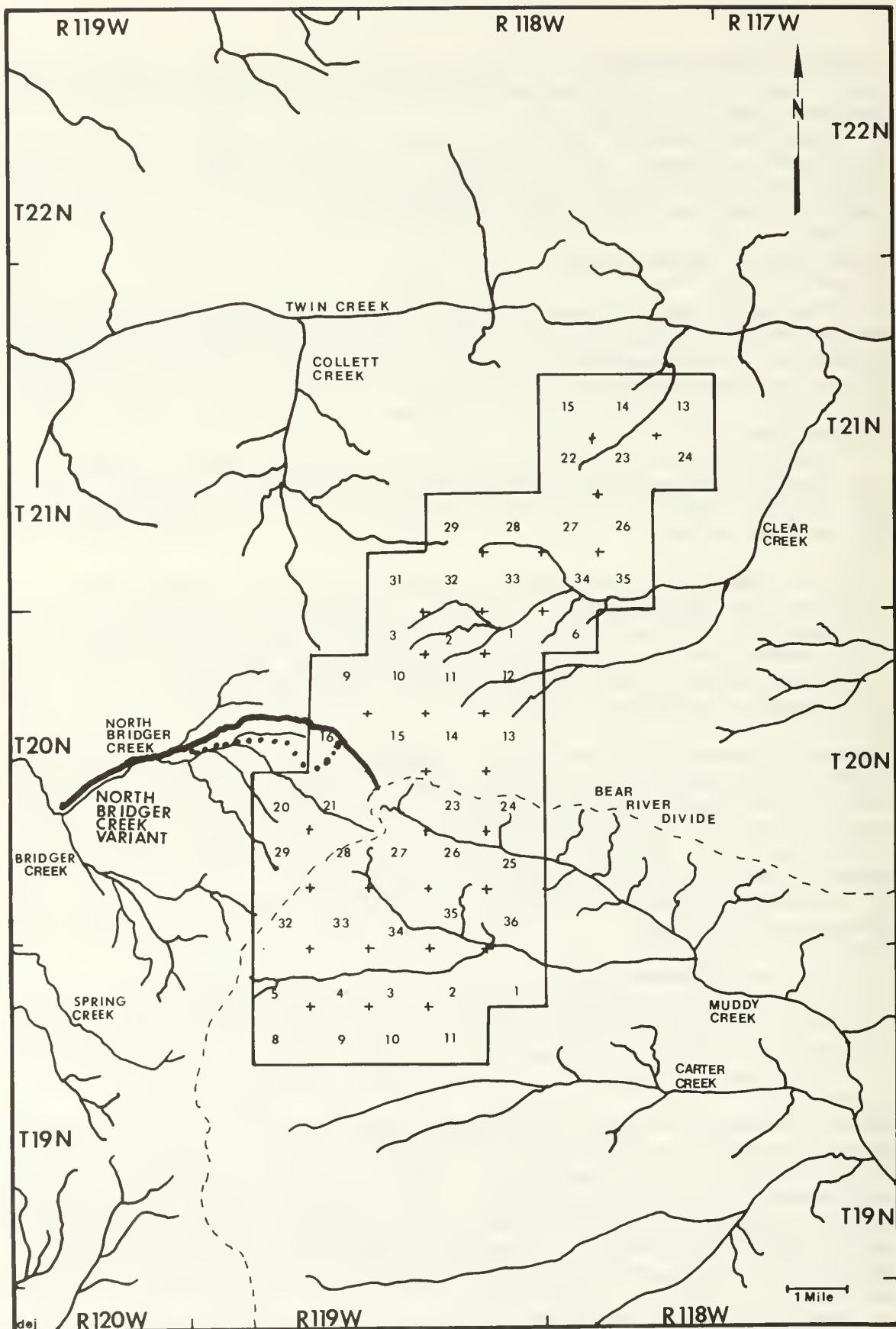


Figure 17. Location of the North Bridger Creek Variant in relation to the Road Hollow Well Field. The split in the trail shown on this map indicates where North Bridger Creek and Sand Knoll segments are located. Sand Knoll is represented by the solid line, Bridger Creek by the dotted line.

the ridge slope. Along this portion of the variant, the trail consists of intact pristine trail ruts. These ruts have integrity of setting and place; therefore, avoidance is recommended. At the base of the slope, approximately 1 mile northwest of its starting point, the Bridger Creek Variant divides into two segments: the North Bridger Creek Segment and the Sand Knoll Segment. This fork is located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 16, T20N, R119W. A North Bridger Creek Segment follows Bridger Creek its entire length. From the ridge crest the trail segment follows the creek westward for approximately 2 $\frac{1}{2}$ miles where it rejoins the Sand Knoll Segment in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 13, T20N, R119W (Appendix B). Unfortunately, the trail has been impacted by erosion. In addition to erosion, considerable disturbance has been created by the damming of North Bridger Creek and its tributaries to form stock ponds for watering cattle. As a result of these activities, portions of the trail have been impacted. However, there are intact sections of the trail along the drainage. The intact segments should be avoided. Clearance is recommended for erosional areas where no trail remains are evident.

The Sand Knoll Segment of the North Bridger Creek Variant continues due west from the fork located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Sections 16, T20N, R119W, and skirts the base of the north slope of Sand Knoll. In the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 7, T20N, R119W, the Sand Knoll Segment turns to the south and begins to descend toward North Bridger Creek. The Sand Knoll Segment rejoins the North Bridger Creek Segment in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 13, T20N, R119W. The route along Sand Knoll exhibits pristine trail ruts along the length of this trail segment. The trail ruts exhibit integrity of setting and place. Avoidance is recommended.

A possible trail variant splits off from the Sand Knoll Segment in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 7, T20N, R119W. This possible variant descends the slope to the northwest into the valley of an unnamed tributary of Bridger Creek. This route then follows the valley westward until it joins Bridger Creek in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 9, T20N, R120W. This possible variant was not inventoried because it is well outside the border of the Road Hollow well field.

In the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 13, T20N, R119W, the North Bridger Creek Segment and the Sand Knoll Segment rejoin to form the last portion of the North Bridger Creek Variant. This section of the trail follows North Bridger Creek through a valley in a southwesterly direction approximately 2 miles. The North Bridger Creek Variant terminates at the point where it meets the South Bridger Creek Variant in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 22, T20N, R119W. The point where the two trail variants meet is near the confluence of North Bridger Creek and Bridger Creek. The last section of the North Bridger Creek Variant is in the valley of North Bridger Creek and contains intact pristine trail ruts. These ruts exhibit integrity of setting and place. Avoidance is recommended.

In sum, pristine trail remains are evident along the Sand Knoll leg of this variant. Also, from the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 13, T20N, R120W, to the point where the North Bridger Creek Variant and the South Bridger Creek Variant come together in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 22, T20N, R120W, the trail is in excellent condition. These pristine trail remains should be avoided by future projects (Appendix B). Where intact trail remains are evident along North Bridger Creek, care should be taken to avoid them.

Collett Creek

The 1981 inventory of the Oregon Trail by the Idaho Historical Society suggested the existence of a northern variant of the Trail in the Bear River Divide area following Collett Creek. This proposed variant splits off from the North Bridger Creek variant in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 17, T20N, R119W (Figure 18). This point is approximately 2 miles northwest of the point where the trail begins to descend from the crest of the divide. From here the road proceeds due north approximately 4 $\frac{1}{2}$ miles until it intersects Collett Creek. The suggested route parallels Collett Creek north to Twin Creek. After crossing Twin Creek, it continues north to the headwaters of Antelope Creek, which it then follows to the Bear River. A branch of this suggested northern variant splits off from the trail in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 26, T21N, R119W. This branch proceeds northeast from Collett Creek to the west end of Nugget Canyon. It proceeds up Nugget Canyon to the mouth of Rock Creek, which it follows until it intersects the Sublette Cutoff in the vicinity of the Rock Slide.

Field investigations showed that a two-track road exists in the area described. The two-track becomes a bladed improved road north of the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 26, T21N, R119W and continues in this condition to Twin Creek. The problem with an Oregon Trail variant in the area of Collett Creek is that there is no supporting historical evidence to confirm its existence. The 1981 IHS Trail inventory is the only study to suggest such a variant. The IHS report does not provide references related to the Collett Creek Variant, so it is impossible to know where the information regarding the variant originated. The National Park Services inventory of the Oregon Trail (1981) does not indicate a section of the trail in this area.

In addition, there is no primary historical evidence for the existence of a trail variant along Collett Creek. Numerous emigrant journals and diaries were reviewed in the process of compiling this report. Not one of them referred to Collett Creek or indicated that wagons might be descending the west side of the Bear River Divide by that route. None of the diaries described landmarks or terrain similar to that which would have been encountered had the emigrants passed along Collett Creek. The diaries are consistent in the routes they do describe. Another source of primary historical evidence are nineteenth- and early twentieth-century maps. Like the diaries, the maps examined in the course of this study did not show a trail variant along Collett Creek.

Through correspondence with the Idaho State Historical Society, the problem of how the Collett Creek Variant came to be considered part of the Bear River Divide Trail Segment comes to light. The historian for the Idaho State Historical Society, Larry R. Jones, states:

A route paralleling Collett Creek was included in the initial phase of the 1981 report based on aerial photography interpretation. Later diary and field research failed to substantiate this route, and it should have been omitted (Jones 1987).

Jones goes on to add that ". . . from our point of view, the route should not be considered a viable variant" of the Oregon Trail (Ibid.).

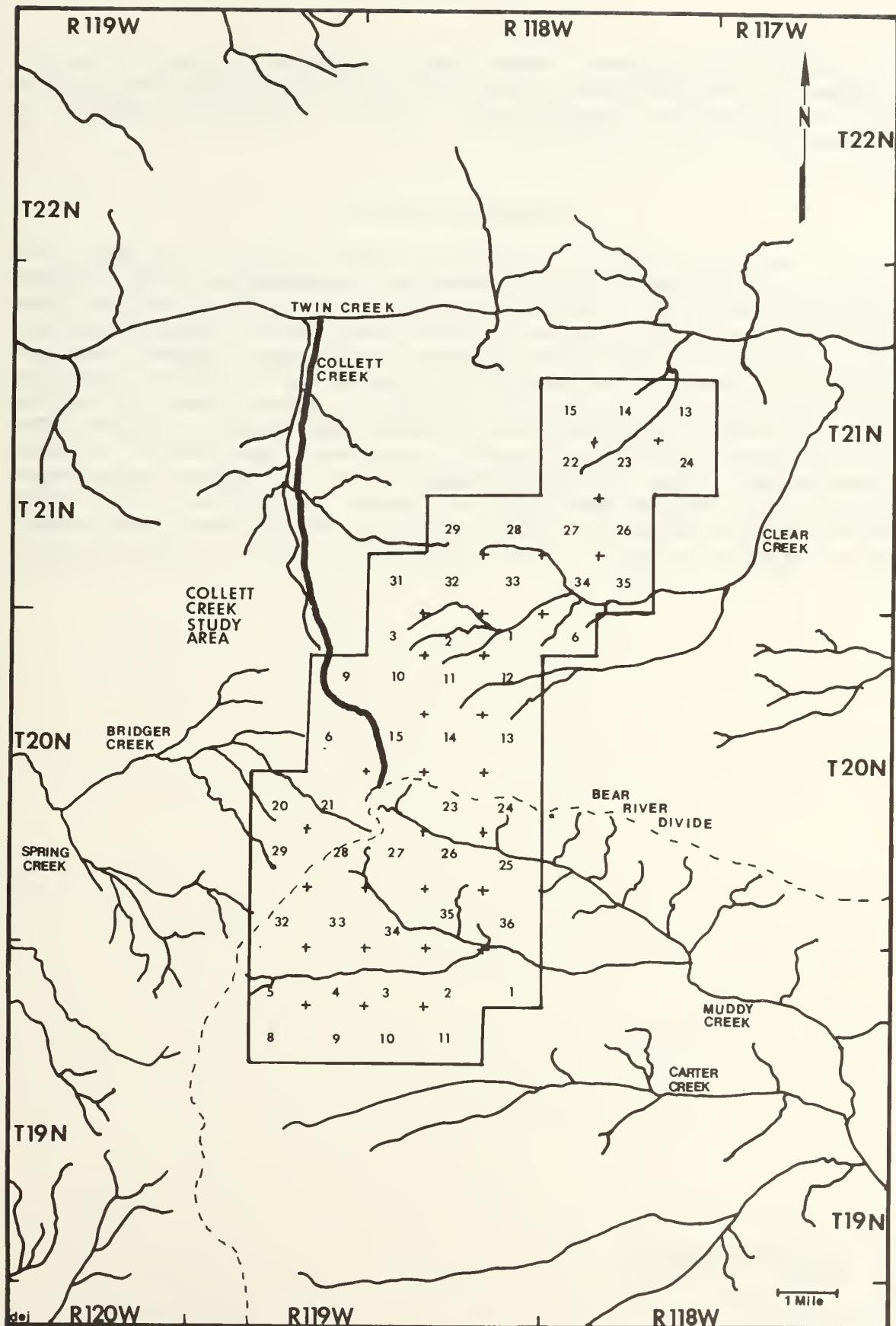


Figure 18. Collett Creek and the proposed variant north. It is felt this is a not a variant of the Oregon Trail.

Based on the archival research and in light of the new information provided by the Idaho State Historical Society, this suggested route is not a part of the Oregon Trail. Cultural resource clearance is recommended for future projects.

Summary of Results

Of the nine possible trail variants inventoried over the Bear River Divide, we feel that five of these are contributing trail segments exhibiting integrity of setting and place. Specifically, we feel that the Little Muddy, Road Hollow, Chicken Creek, North Bridger Creek-Sand Knoll, and South Bridger Creek Variants exhibit trail segments that are in pristine condition and should be avoided by future projects (Appendix B). The Spring Creek Variant lies outside the project area, but we also feel this segment might have trail remnants that should be avoided. The Ridge Variant and Divide Segment have been impacted by previous construction. Along the Divide Segment there are isolated spots where intact trail remains parallel the crowned and ditched road. These intact segments should be avoided. Finally, the Collett Creek Variant is not felt to be part of the original Oregon Trail crossing the Bear River Divide.

CHAPTER IV

DISCUSSION

Reasons for selecting a particular route west were as varied as the people traveling the trails in the nineteenth century. Selecting the path you followed did not end with choosing whether you took the Sublette Trail or the Bear River Divide. Often during the summer months when traffic west was the heaviest, little grass could be found along the route and the emigrant had to move off the main road to find food for his animals. Water was not readily available, and variations in the trail would develop to allow the emigrant to pass near a spring or stream. Then there was the problem of dust (Minto 1844:210). Traveling behind other wagon trains in the dry and arid West made turning off the road to take an alternate route attractive. Dust and mud made the trip difficult. When an area became a bog, a route around the mud hole was necessary. A variety of factors led to variations along the same trail.

The Bear River Divide, with its different routes up the headwaters of the Little Muddy and then down Bridger Creek tributaries, lent itself to selecting routes that seemingly had more to offer in the form of water or grass. The emigrants traveling up Muddy Creek were confined to following the valley of the stream until they reached the headwaters. By being confined to this valley, the forage was rapidly depleted, and travelers found a shortage of grass. Joel Palmer in his 1845 diary provides insight into the condition of the grass in this valley. For July 28 and 29 he reports:

Today we travelled about sixteen miles. Ten miles brought us to the Big Muddy [Little Muddy]. Country barren. Our course is up the Big Muddy, and nearly north. Encamped on the creek. Very poor grazing . . .

This day we travelled about sixteen miles. Our course is still up the Muddy. Emigrants would do well to push on up to near the head of this creek, as the grass is good and there are excellent springs of water. The country is very rough. We saw a few beaver dams (Palmer 1847:35-36).

The headwaters of the Little Muddy offered fresh grass. Since Little Muddy, Chicken Creek, or Road Hollow all allowed access to the Bear River Divide, the emigrants could choose a route offering the most grass for their livestock. Once over the divide, the trail again followed three different drainages downhill before merging and continuing the descent to the Bear River.

The lack of forage and water often caused the emigrants to choose alternative routes. The various routes over the Bear River Divide permitted the traveler to obtain fresh water and grass. Fresh grass was needed especially after having traveled along Little Muddy for some distance without adequate forage. By choosing a route not recently used, the emigrant was assured of finding food for his livestock. In using three routes (instead of one) to cross the Bear River Divide, the potential for traveling over a route that was overgrazed was lessened.

Certain topographic features, such as Muddy Creek and Bear River Divide, are still called by the same names used by the nineteenth-century emigrants. This enables us to focus our attention on a specific area but does not permit us to narrow the study to a precise location if deviations in the trail occurred. The trail diaries provide general impressions of east to west travel over the Bear River Divide. All of the diaries used in this study discuss traveling up a stream

course to the divide. They usually give the name of this portion of the drainage as the headwaters of Muddy Creek. In descending the Bear River Divide, the creeks are not mentioned by name but the fact that they followed a drainage west of the Muddy Creek headwaters is recorded. The diaries convey the idea the emigrants traveled up to the headwaters of Muddy Creek, over the Bear River Divide, and down the tributaries of Bridger Creek to the Bear River Valley.

Little Muddy Creek, Road Hollow, Chicken Creek, North Bridger Creek, South Bridger Creek, and Spring Creek served as natural travel corridors over the Bear River Divide. Any major deviation south of this route would mean dropping off the divide over steep inclines. Traveling north and then down Collett Creek would necessitate first climbing Fossil Ridge or Sillem Ridge. Since the emigrants had already reached the crest of the Bear River Divide, a northward detour was not practical since the traveler could easily descend westward without additional climbing and strain on the animals. The headwaters of Little Muddy and Bridger Creek led to a natural pass. Emigrants following these streams found needed water, grass, and an easy path over the Bear River Divide, making the route attractive to travelers going west from Fort Bridger to Fort Hall.

CHAPTER V

MANAGEMENT SUMMARY

The primary goal of this project was to determine the routes the emigrants took in crossing the Bear River Divide. Based on archival records and the field inventory, we feel that Little Muddy, Road Hollow, Chicken Creek, North Bridger Creek-Sand Knoll, and South Bridger Creek variants were part of the original Oregon Trail between Fort Bridger and Fort Hall. These variants exhibit pristine trail ruts and should be avoided by future projects.

Currently, access roads, well pads, and pipelines have been constructed in the southern portion of the Road Hollow Well Field. These modern features should serve as future corridors for new access roads and pipelines. In addition, drilling and earth-disturbing activities can take place on ridge tops in the southern portion of the Road Hollow Unit without creating visual or physical impacts to the trails. The valleys, however, are narrow, and care will have to be exercised in placing well pads or other earth-disturbing activities along the valley floors. Only in areas along the upper reaches of Little Muddy Creek or Chicken Creek where erosion has taken place would pipeline crossings be feasible. Along the upper reaches of these creeks there are still intact trail segments, so each earth-disturbing activity would have to be considered on a case by case basis. Because there are pristine trail ruts along these valley floors and because they are relatively narrow, it is recommended that construction activities be confined to areas outside the drainages. This recommendation is in keeping with current BLM and State Historic Preservation Office guidelines that prohibit visual intrusions in areas adjacent to pristine trail remains (or contributing trail remains).

Although Spring Creek lies outside our primary study area, some mention of it should be made here because it is a continuation of the trails in the southern part of the study area. Since this trail lies outside the project area, it was not intensively inventoried. Cursory examination in the field leads us to believe it could be a contributing trail. The diaries, although not mentioning Spring Creek specifically, refer to traveling down the tributaries of Bridger Creek. It is believed portions of the Spring Creek Variant exhibit integrity of setting and place and should be avoided by future construction activities.

The Ridge Variant, Divide Segment, and the Collett Creek Variant are not felt to be contributing trail segments. The Ridge Variant has been impacted by existing powerlines (visual impact) and construction activities. This variant no longer exhibits intact trail remains. Moreover, the continued references by nineteenth-century trail diarists of traveling up the valley floors suggests the Ridge Variant was of minor significance to emigrants crossing the Bear River Divide in the mid-1800s. The Divide Segment, which served as a connecting link between the various routes, has been impacted by construction of a crowned and ditched road along the ridge crest. Only in a few isolated spots (Rosenberg 1985) are there any remnants evident. The Collett Creek Variant, which involves a northward swing to Twin Creek before reaching the Bear River Valley, is not mentioned in any historic diaries or maps consulted for this project. Although physical features such as creeks are not generally mentioned in trail diaries, the direction of travel and nature of the trail was usually described in varying degrees of detail. No diaries mention a swing to the north before reaching the Bear River Valley. For these reasons, we do not feel the Ridge Variant,

the Divide Segment, or the Collett Creek Variant are currently contributing trail segments, and clearance is recommended for these variants as described in this report.

In conclusion, based on the historical research and field survey, we feel that the Oregon Trail followed Muddy Creek to its headwaters, then traveled up either Little Muddy Creek, Road Hollow, or Chicken Creek to the Bear River Divide. The trail then dropped over the Divide via North or South Bridger Creek to their confluence and proceeded down Bridger Creek to the Bear River. This is seen as the primary route taken by emigrants traveling west in the mid-nineteenth century. Other possible routes that might have been used were the Ridge Variant and Spring Creek Variant. These routes were probably of secondary significance in comparison to the others. Based on the trail diaries and physical remains, North and South Bridger Creek, Little Muddy Creek, Chicken Creek, and Road Hollow were the primary means of ascending and descending the Bear River Divide.

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APPENDIX A
PHOTOGRAPHS OF THE
BEAR RIVER DIVIDE TRAIL SEGMENTS

Methodology

The process of evaluating the Oregon Trail variants in the Bear River Divide included the taking of numerous photographs to document trail conditions. The photographs were taken from a total of 20 separate shot localities. The locations of these shot localities are plotted on Figures 1 through 5. The photographs taken from each of these shot localities are listed in this appendix. The list indicates the location of each shot locality, a description, and the direction.

These photographs serve two purposes. The first is to document the location of existing segments of the trail. As has been stated in the text, the primary historical accounts can provide a general indication of the location of the trail segment and the terrain over which it crossed. However, the historical record does not provide detailed information concerning the location of every mile of every variant. These photographs document the exact locations of each trail variant and detail the terrain through which the variant passed. The second function that these photographs serve is to document the present condition of the various segments. Postemigrant use of the trails by ranchers, sheepherders, oil field-related work, and general weathering can combine in certain areas to affect the integrity of the trail segment.

The locations of the 20 shot localities were chosen so that the photographs document the location of the trail segment, the topography through which it passed, and the condition of the trail. In order to document the location of the trail segment and surrounding terrain, it was necessary for the photograph to cover a wide area. Nine of the twenty shot localities were located so as to provide overviews of the valleys on the east and west slopes of the Bear River Divide. Shot Locality 1 was located at the head of Chicken Creek so that a view of the Chicken Creek Valley extending to its junction with Little Muddy Creek could be captured. Shot Locality 2 looks west from the crest of the Bear River Divide across the Bridger Basin. The Bridger Creek Variant which descends through this basin was likely one of the major routes down off the divide. Photographs from Shot Locality 2 show the terrain that this variant passes through as it moves downslope to the west. Shot Locality 3 was located so as to permit overviews of the upper end of Chicken Creek. The shot locality is east and north of the head of Chicken Creek. The Chicken Creek Variant moved along the valley floor and then ascended the slope at the west end of the drainage. Six photographs covering a significant portion of the Chicken Creek valley were taken from this locality, as it was necessary to walk some distance in order to record the valley's length. It is for this reason that Shot Locality 3 is larger than the other 19 localities. Shot Locality 7 is the next locality from which an overview was taken. It shows the upper end of Road Hollow. The photographs taken from this spot show the area where the Road Hollow Variant leaves the valley and ascends the ridge slope toward the crest of the Bear River Divide. Shot Locality 8 is also located on the ridgeline at the head of Road Hollow. The photographs taken at this locality show the Road Hollow Variant cresting the Bear River Divide. Shot Locality 10 is located south of Chicken Creek approximately halfway between the Little Muddy Creek-Chicken Creek junction and the Chicken Creek-Road Hollow fork. The photographs taken at this locality cover the lower end of Chicken Creek and portions of

Little Muddy Creek. At the point where Chicken Creek flows into Little Muddy Creek, the Oregon Trail forks. The Chicken Creek and Road Hollow variants turn due west at this point while the Little Muddy Creek Variant continues briefly to the north before also turning west. Shot Locality 16 is located near the tip of the interfluvial ridge separating Road Hollow and Chicken Creek. The view shows the point where the two valleys separate. The set of ruts running along the ridge are not a part of the Oregon Trail but are probably a subsequent ranch road. Shot Localities 17 and 18 both depict overviews of Road Hollow. Shot Locality 17 is atop the Bear River Divide at the westernmost end of Road Hollow. This enabled photographs to be taken covering the length of the upper end of the valley. Shot Locality 18 is on the valley floor in the upper end of Road Hollow. From this point, the Road Hollow Variant can be seen ascending the crest of the divide.

Seven shot localities were positioned so as to document the condition of a particular portion of a trail variant. Unlike the overviews taken from the nine shot localities described above, these photos tend to cover a limited area centering on a set of trail ruts. While the terrain of the immediate locality is visible, the primary purpose of these photographs is to document the degree to which a trail variant has been impacted by weathering, erosion, or subsequent use.

Four of the seven shot localities are in Road Hollow. These shot localities are numbers 4, 5, 6, and 19. These shot localities cover the Road Hollow Variant in the western half of Road Hollow as well as along the ridge slope where the variant ascends to the crest of the Bear River Divide. There are two reasons for the number of shot localities located in Road Hollow. The first reason is that the Road Hollow Variant is considered to be one of the most heavily traveled routes to the crest of the Bear River Divide within the Exxon Road Hollow Unit. The second reason is that the Road Hollow Variant exhibits integrity of setting and place along its entire length from Chicken Creek to the summit of the Bear River Divide. Because it was a heavily traveled route and due to its good state of preservation, it was felt this variant deserved extensive documentation. Shot Locality 19 is the easternmost locality in Road Hollow. The photographs show pristine trail ruts along the valley floor. Shot Localities 4, 5, and 6 are along the north slope of the valley. They show the trail ruts as they climb to the ridge crest. These photos show that the variants have integrity of setting and place in this area and also show the type of slope that emigrant wagons would have had to contend with as they passed over the divide.

Two shot localities were positioned on Little Muddy Creek. These are Shot Localities 11 and 12. Shot Locality 11 is on the Muddy Creek Variant. This is a portion of the main route running northwest from Fort Bridger to the Bear River Divide. The shot locality is southeast of the point where the Bear River Divide variants begin to split off. The Oregon Trail in this area has integrity of setting and place. Shot Locality 12 is located on the Little Muddy Creek Variant upstream from the confluence of Chicken Creek. This shot locality also documents a section of the trail which exhibits both integrity of setting and place.

The seventh shot locality, number 20, is located north of the Bear River Divide in the area of Collett Creek. The photographs from this locality document what was thought to be a variant of the Oregon Trail which paralleled Collett Creek from the divide to Twin Creek.

Subsequent research has shown that there is no supporting evidence to suggest that such a variant existed. The ruts in that picture are not considered to be associated with the Oregon Trail.

Two of the 20 shot localities were positioned to record objects which may have been related to the emigrant passage along the Oregon Trail. The first of these, Shot Locality 13, is located on Little Muddy Creek. A tombstone was found along the trail at this spot, and a shot locality was established to photograph it. The second Shot Locality, number 15, was placed adjacent to a sandstone cairn above Chicken Creek Valley. This cairn should not be confused with the cairn found in Section 8, T19N, R119W near Shot Locality 3.

The final two shot localities to be discussed were originally thought to show ruts belonging to segments of two Oregon Trail variants. These two shot localities are numbers 9 and 15. Shot Locality 9 shows a set of ruts climbing the interfluvial ridge separating Chicken Creek from Road Hollow. Subsequent research did not produce any evidence for a trail variant in this location. Therefore, these two-tracks are not considered to be related to the Oregon Trail. The second and last shot locality is number 15. It is located along the Little Muddy Creek Variant. At one point it was felt that the Little Muddy Creek Variant climbed to the crest of the divide beginning at this point. It was thought that the variant would then move west along the summit of the ridge until it met the Divide Segment and descended to North Bridger Creek. The shot locality was established to document this portion of the trail. Subsequent research indicated that the Little Muddy Creek Variant remained within the valley to its head and did not climb out at this point. The pictures taken at this locality do not show a segment of the Oregon Trail.

The photographs taken from the 20 Bear River Divide shot localities provide extensive documentation of both the terrain over which the emigrants once passed as well as the condition of the trail variants within the Road Hollow Unit today. They document the routes over which the wagon trains once passed and show how the valleys of Chicken Creek, Road Hollow, and Little Muddy Creek provided relatively easy passage to the crest of the Bear River Divide. The pictures document the points where the trail ascended steep grades, such as in the west end of Road Hollow.

WESTERN WYOMING COLLEGE

WINDY POINT, WYO.

N41375-W110525/75

1962

AMS 3867 III NW - SERIES V874

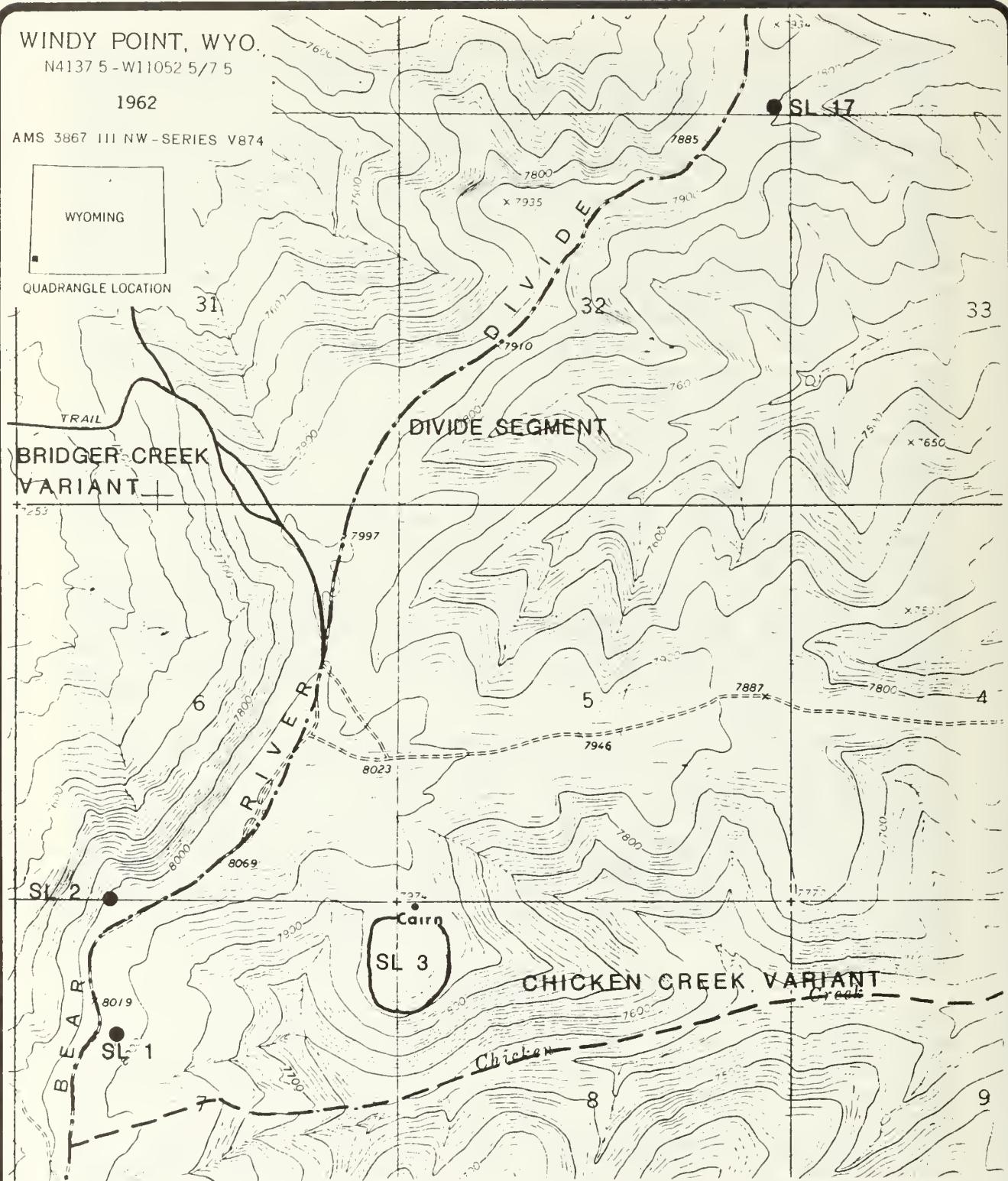


Figure 1. Map showing the locations of Shot Localities 1, 2, 3, Sections 6, 7, 8, T19N, R119W and Shot Locality 17, Section 29, T20N, R119W. Taken from Windy Point, USGS 7.5 min., quad.

WESTERN WYOMING COLLEGE

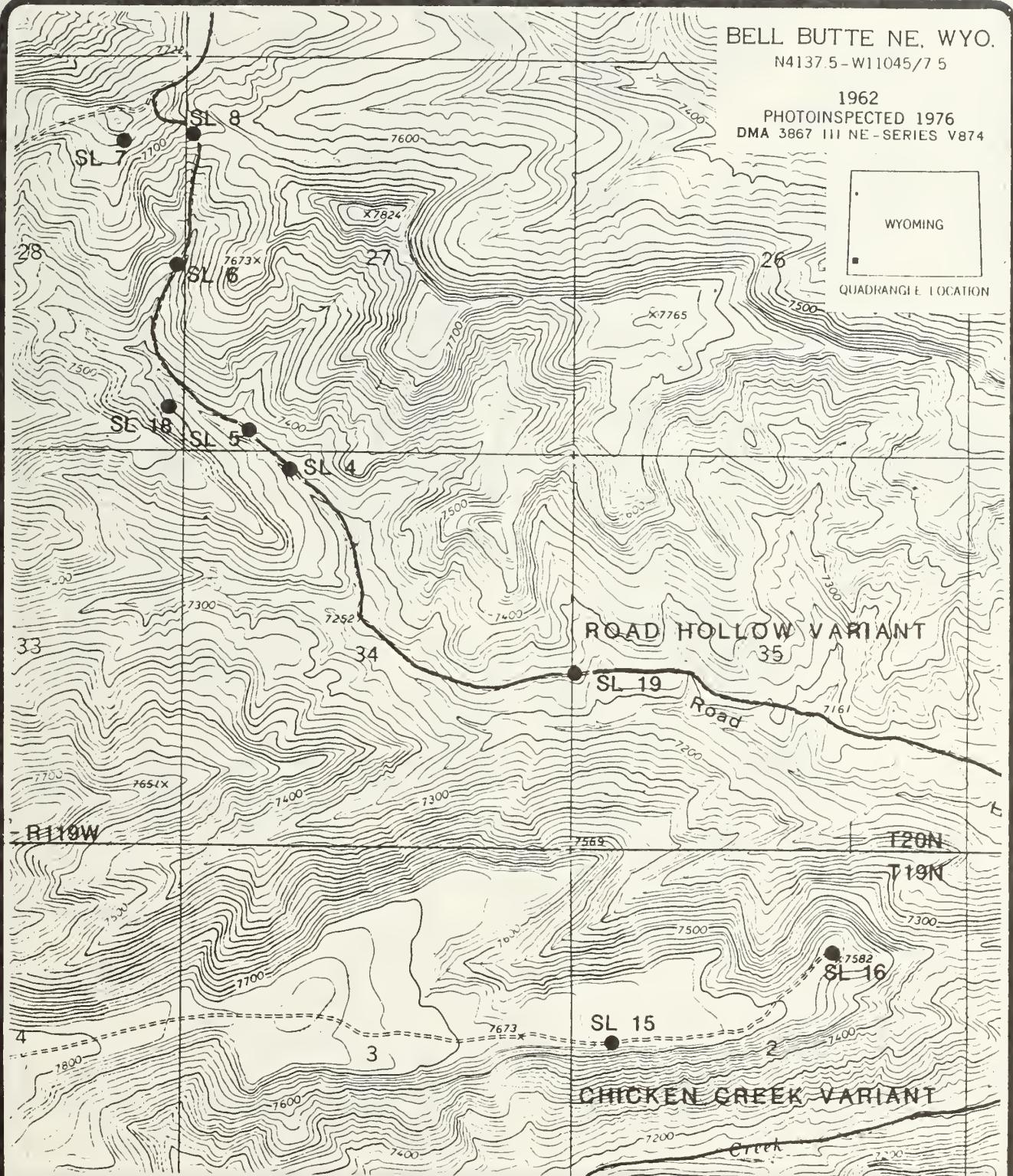


Figure 2. Map showing the locations of Shot Localities 4, 5, 6, 7, 8, 18, 19, Sections 27, 28, 34, 35, T20N, R118W as well as Shot Localities 15 and 16. Section 2, T19N, R118W. Taken from Belle Butte NE, USGS 7.5 min. quad.

WESTERN WYOMING COLLEGE

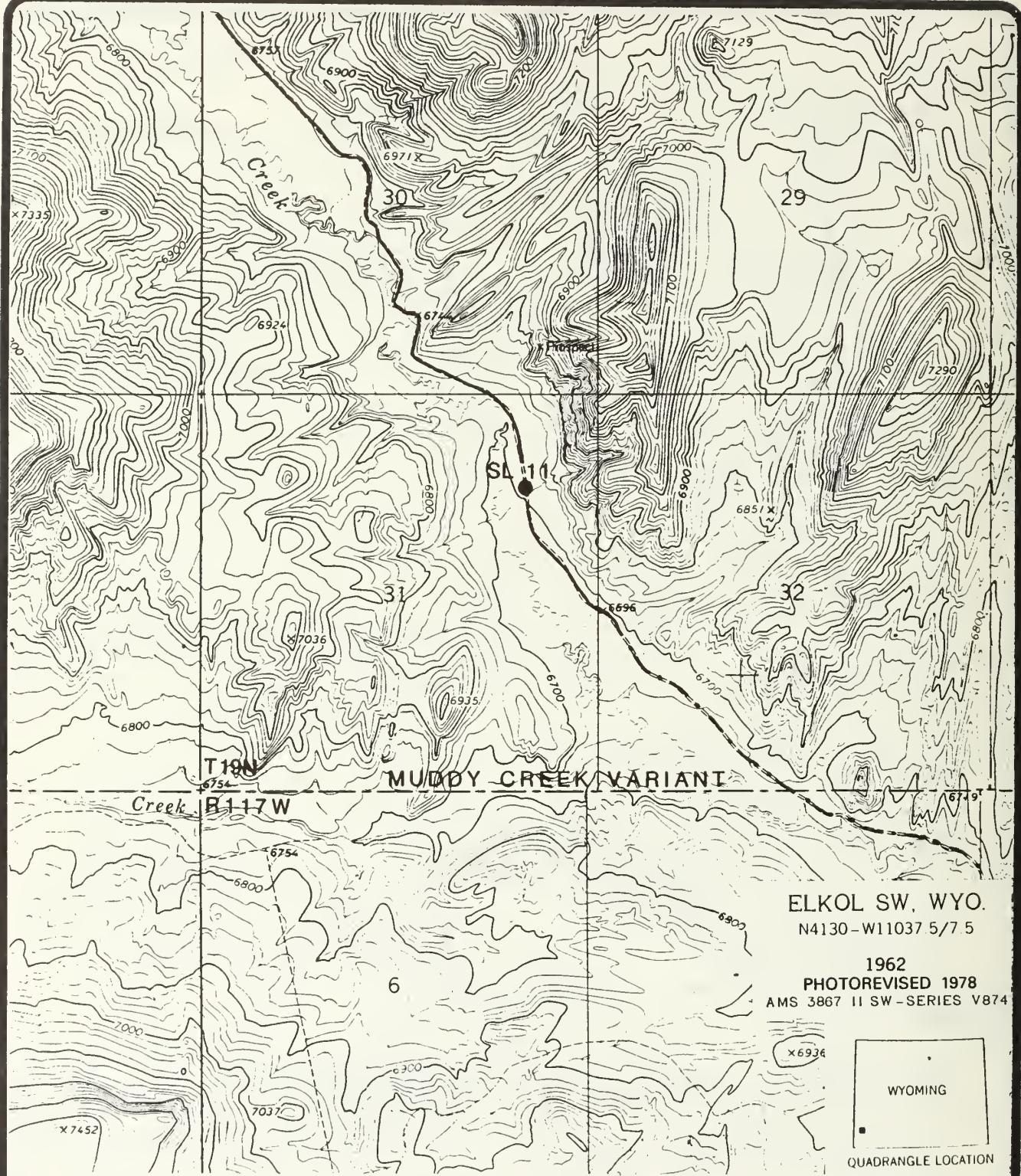


Figure 3. Map showing the location of Shot Locality 11, Section 31, T19N, R117W. Taken from Elkol SW, USGS 7.5 min. quad.

WESTERN WYOMING COLLEGE

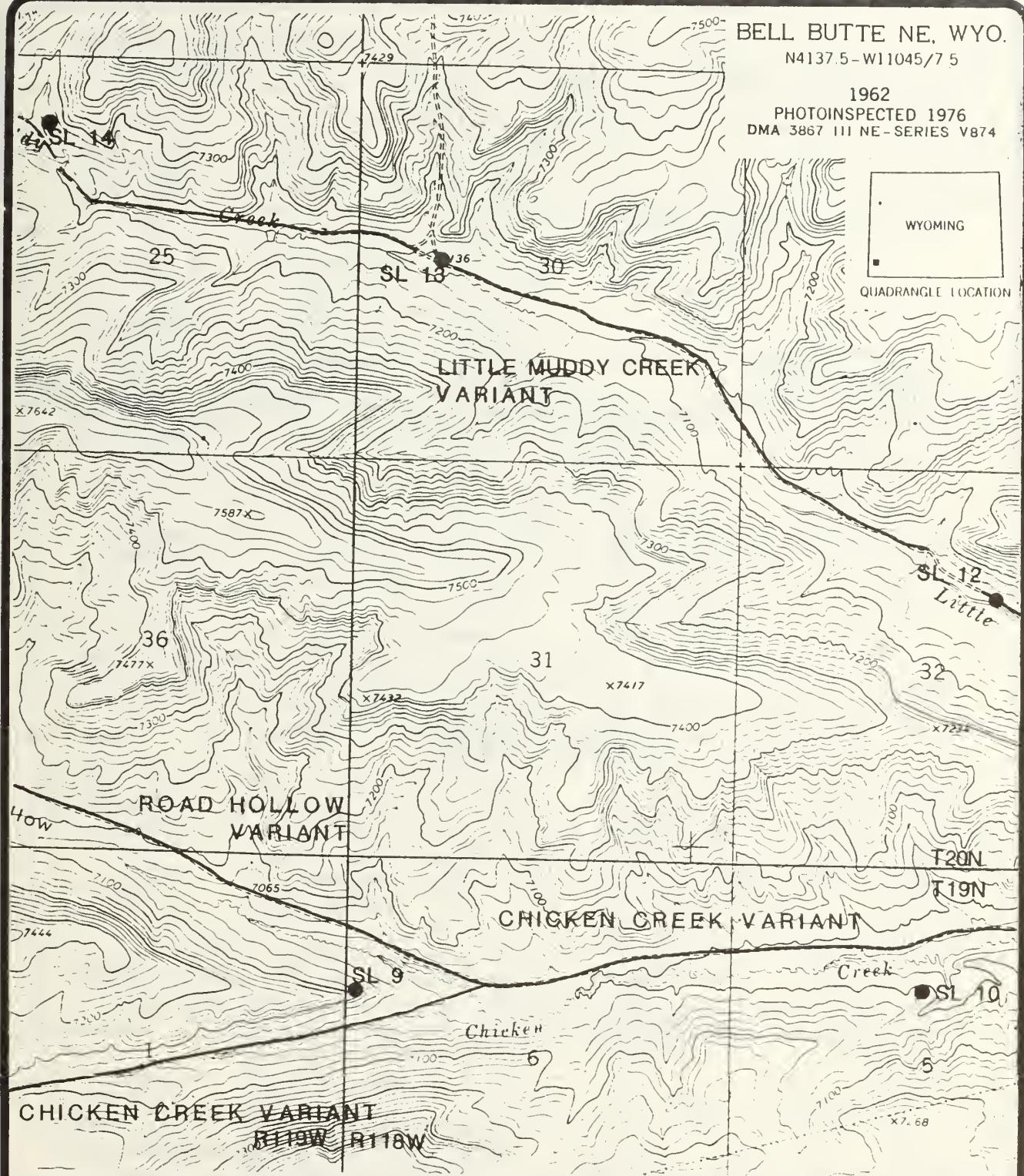


Figure 4. Map showing the location of shot localities 9 and 10, Sections 5 and 6, T19N, R118W; Shot Localities 12 and 13, Sections 30 and 32, T20N, R118W; and Shot Locality 14, Section 25, T20N, R119W. Taken from Bell Butte NE, USGS 7.5 min. quad.

WESTERN WYOMING COLLEGE

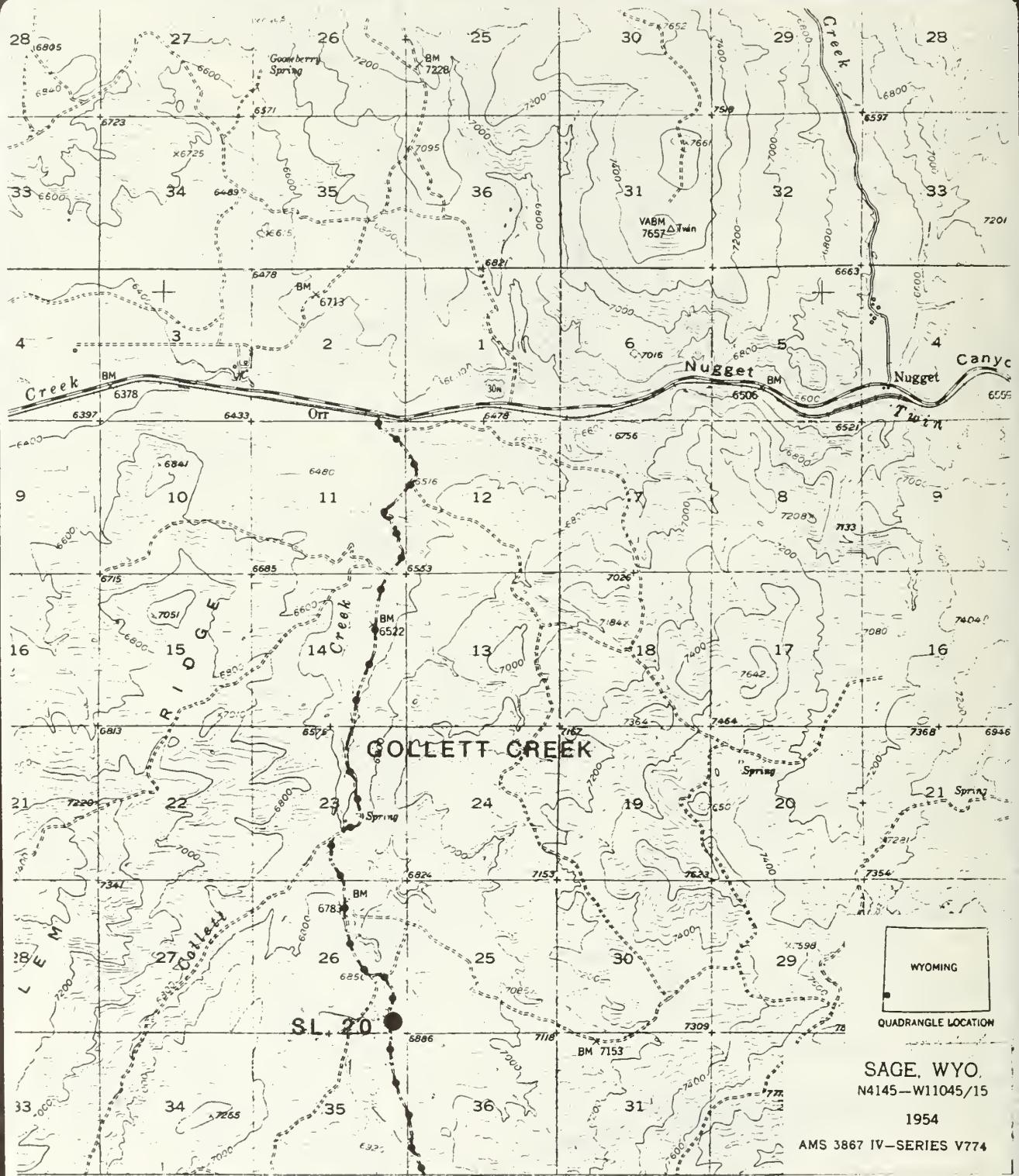


Figure 5. Map showing the location of Shot Locality 20, T21N, R119W. Taken from the Sage USGS 15 min., quad.

Shot Locality 1 (Chicken Creek Variant)
 NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 7, T19N, R119W

Frame 1 Overview of Chicken Creek; the view is to the east.
 Frame 2 Same as Frame 1.

Shot Locality 2 (Bridger Creek Variant)

SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, Section 6, T19N, R119W

Frame 3 Overview of Bridger Hill and the Bridger Basin. The view is to the west.
 Frame 4 Same as Frame 3.

Shot Locality 3 (Chicken Creek Variant)

NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 7, T19N, R119W

Frame 5 Easternmost of three bracketed shots of Chicken Creek. The view is to the south.
 Frame 6 Center shot of three bracketed shots of Chicken Creek. The view is to the south-southwest.
 Frame 7 Westernmost of three bracketed shots of Chicken Creek; the view is to the southwest.
 Frame 8 Overview of Chicken Creek. The view is to the west.
 Frame 9 Overview of Chicken Creek. The view is to the east.
 Frame 10 Will Gardner at Chicken Creek. The view is to the southwest.

Shot Locality 4 (Road Hollow Variant)

NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 34, T20N, R119W

Frame 11 Trail climbing out of Road Hollow. The view is facing north at the base of the interfluvial ridge separating Road Hollow and Little Muddy Creek.

Shot Locality 5 (Road Hollow Variant)

SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 27, T20N, R119W

Frame 12 Trail climbing out of Road Hollow. The view is facing south approximately half way up the slope of the interfluvial ridge separating Road Hollow and Little Muddy Creek.

Shot Locality 6 (Road Hollow Variant)

NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 28, T20N, R119W

Frame 13 Trail climbing out of Road Hollow. The view is to the south at the crest of the interfluvial ridge separating Road Hollow from Little Muddy Creek.

Frame 14 Same as Frame 13.

Shot Locality 7 (Road Hollow Variant)

SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 28, T29N, R119W

Frame 15 Overview of the head of Road Hollow. The view is to the south.

Shot Locality 8 (Road Hollow Variant)

SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 28, T20N, R119W

Frame 16 Trail atop Bear River Divide. Road Hollow is to upper right. The view is to the east.

Frame 17 Trail atop Bear River Divide just north of Road Hollow. The view is to the south.

Shot Locality 9 (not a trial segment)

NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 6, T19N, R118W

Frame 18 Ruts along the ridge separating Road Hollow and Chicken Creek. The view is to the east.

Shot Locality 10 (Chicken Creek Variant)

NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 5, T19N, R118W

Frame 21 View of Chicken Creek and Little Muddy Creek. The view is to the east.

Frame 22 View of Chicken Creek and Little Muddy Creek. The view is to the east.

Shot Locality 11 (Muddy Creek Variant)

SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 31, T19N, R117W

Frame 1 View of the trail in Little Muddy Creek Valley. The view is to the northwest.

Shot Locality 12 (Little Muddy Creek Variant)

NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 32, T20N, R118W

Frame 2 A view of the trail in the Little Muddy Creek Valley. The view is to the west.

Frame 3 Same as Frame 2.

Shot Locality 13 (Little Muddy Creek Variant)

SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 30, T20N, R118W

Frame 4 Tombstone in Little Muddy Creek Valley. The view is to the northwest.

Frame 5 Same as Frame 4.

Shot Locality 14 (not a trail segment)

SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 25, T20N, R119W

Frame 6 Point where a possible variant of the trail climbs out of the Little Muddy Creek Valley. The shot is facing north.

Shot Locality 15

SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 2, T19N, R119W

Frame 10 Sandstone slab, Cairn, atop the interfluvial Ridge separating Road Hollow and Chicken Creek. The view is to the east.

Shot Locality 16

NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 2, T19N, R119W

Frame 11 A general view of Chicken Creek and the lower end of Road Hollow. The division of the Chicken Creek and Road Hollow trail variants is beyond the end of the ridge. The view is to the east. The ruts running along the top of the ridge are not a segment of the Oregon Trail.

Frame 12 Same as Frame 11.

Frame 13 View of the trail in Road Hollow. Elk Mountain is in the background. The view is to the north.

Frame 14 Same as Frames 11 and 12.

Shot Locality 17 (Road Hollow Variant)

SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 29, T20N, R119W

Frame 15 Overview of Road Hollow. The view is to the east.

Shot Locality 18 (Road Hollow Variant)

SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 28, T20N, R119W

Frame 16 Trail ascending the north slope of Road Hollow. The view is to the north.

Shot Locality 19 (Road Hollow Variant)

NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 35, T20N, R119W

Frame 17 A general view of the trail in Road Hollow. The view is to the west.

Shot Locality 20 (Collett Creek, not a trail segment)

SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 26, T21N, R119W

Frame 16 Ruts in the location of the supposed trail variant along Collett Creek. The view is to the south.

APPENDIX B

U.S.G.S. QUAD MAPS

This appendix contains full-sized reproductions of the four USGS 7.5 minute quad maps covering the Bear River Divide trail study area. These maps are the Elkol SW quad, the Warfield Creek quad, the Bell Butte NE quad, and the Windy Point quad. The locations of the Bear River Divide and Oregon Trail Variants are plotted on each map. Trail variants are also plotted according to their state of preservation. A key is included which indicates the degree to which each variant has been impacted by natural or manmade activities. The maps also show the location of two possible trail variants; one descends Spring Creek, and one is located north of the Bridger Creek Variant. These were outside the boundaries of the study area and therefore were not inventoried or discussed in detail in this report.

These maps only show what we feel are viable variants of the Oregon Trail. These variants have been surveyed in the field and exhibit intact trail remains. Omission of variants previously believed to be located in the Bear River Divide means trail remains were not found and historical documents do not support their existence. Only those trails felt to be part of the Bear River Divide Trail Segment are illustrated.

BEAR RIVER DIVIDE TRAIL SEGMENT
KEY

—
Trail segments exhibiting integrity of setting and place
Segments consisting of pristine trail ruts
Avoidance is recommended

— — —
Trail segments with integrity of place.
Segments consist of two track roads which have some
visual impairment due to erosion.
Avoidance is recommended.
Construction can take place adjacent to the segment but
cannot cross it.

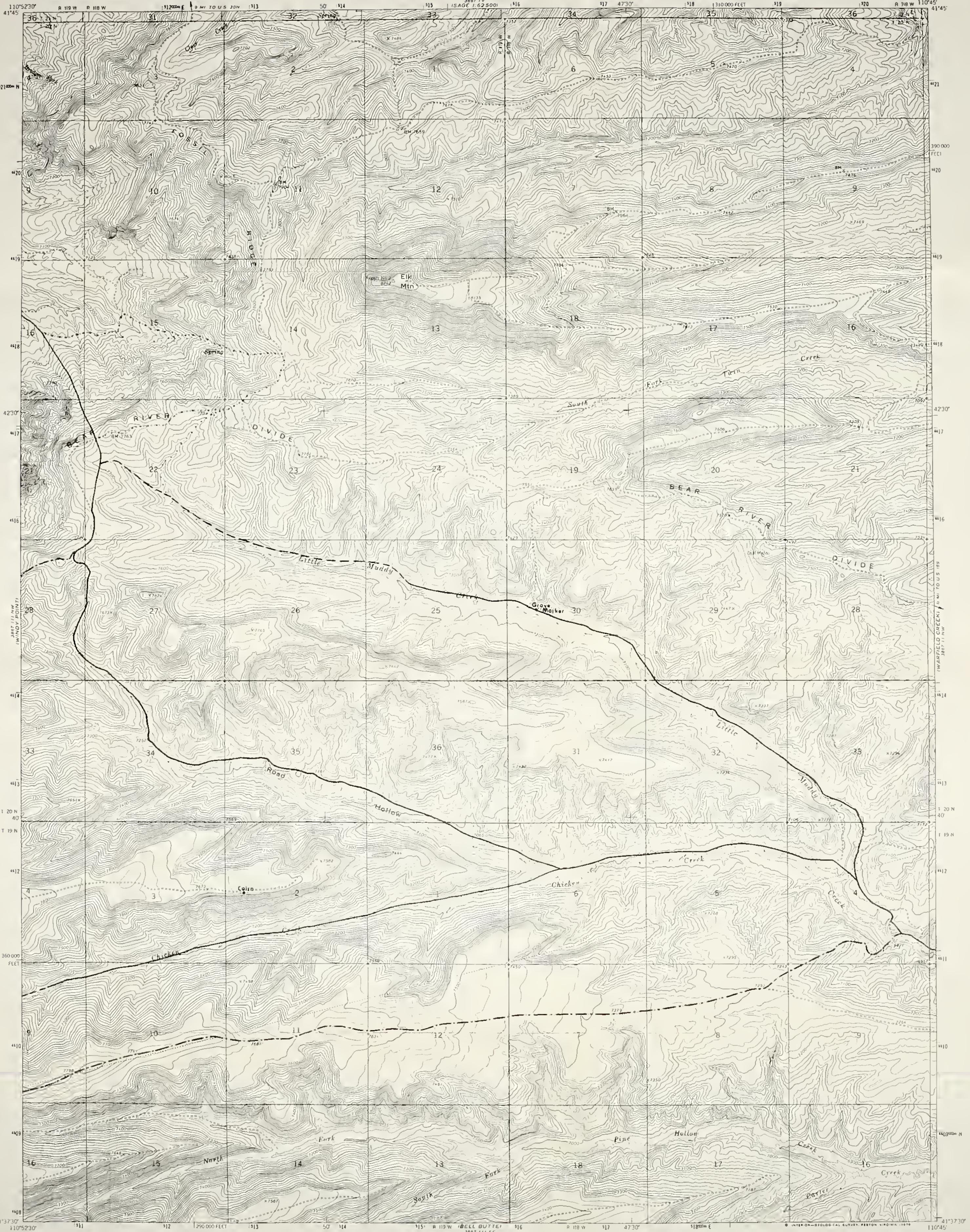
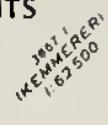
— · · · · —
Trail segments that have either been visually or physically
impacted by previous construction and/or erosion.
The visual impact to the segment is considerable.
Clearance is recommended except for areas where intact
trail ruts parallel existing crowned and ditched roads.

.....
Trail segments that have been eroded or destroyed by
construction with little or no remains evident.
The North Bridger Creek drainage has been severely
eroded
Clearance is recommended for all areas except for
North Bridger Creek where some trail remains may be found.

.....|.....|... + —

Trail remains outside of the Road Hollow well field.
Collett Creek is not a contributing trail segment to the
Oregon Trail.

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Topography by photogrammetric methods from aerial photographs taken 1961. Field checked 1962.

Polynomial projection 1927 North American Datum
10,000 foot grid based on Wyoming coordinate system west zone
1000 meter Universal Transverse Mercator grid ticks
Zone 12, shown in blue

Map photoinspected 1976
No major culture or drainage changes observed

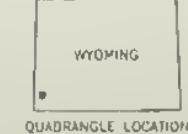
UTM GRID AND 1962 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

0.07°
4 MILS
10.5°
203 MILS

SCALE 1:24 000
0 1000 2000 3000 4000 5000 2000 FEET
1 MILE
0 5 0 1 FORTNIGHT

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



WYOMING

QUADRANGLE LOCATION

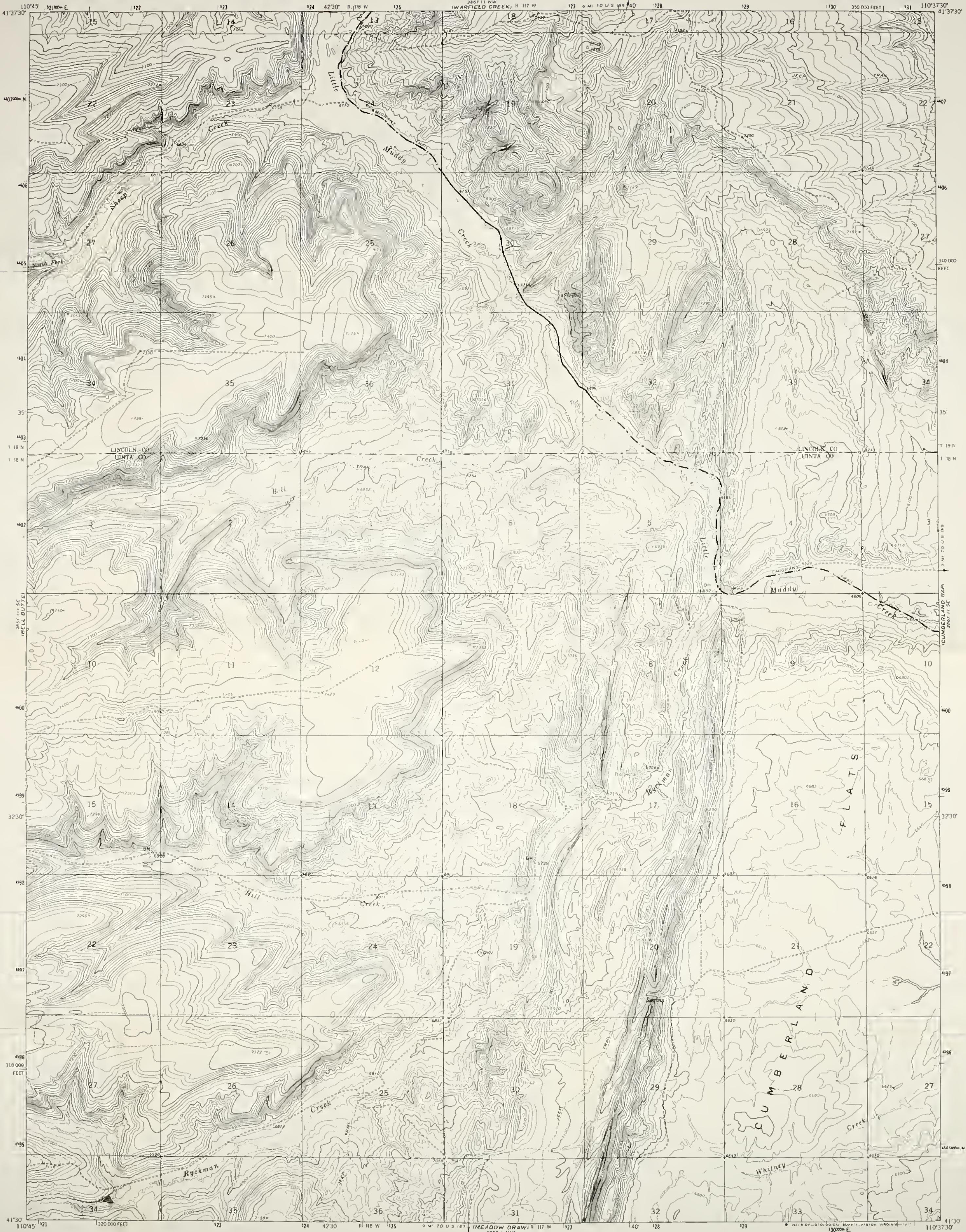
BELL BUTTE NE, WYO.
N41375-W11045-75

1962
PHOTOINSPECTED 1976
DMA 3897 III NE-SERIES 75

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



BEAR RIVER DIVIDE TRAIL SEGMENTS
ELKOL SW QUADRANGLE
WYOMING
7.5 MINUTE SERIES (TOPOGRAPHIC)



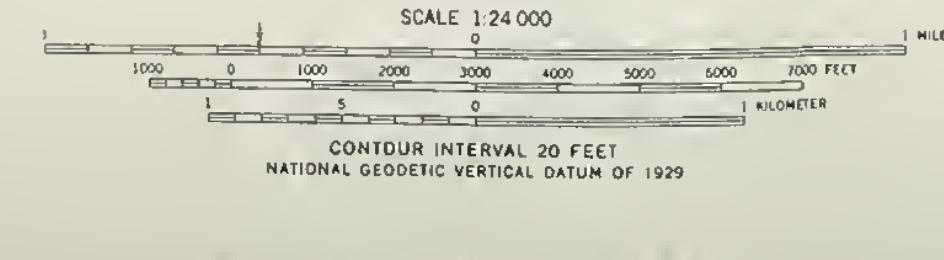
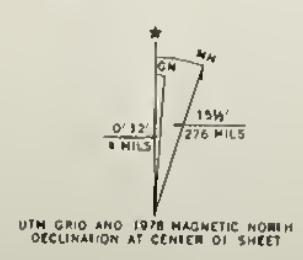
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Topography by photogrammetric methods from aerial photographs taken 1961-1962. Field checked 1962

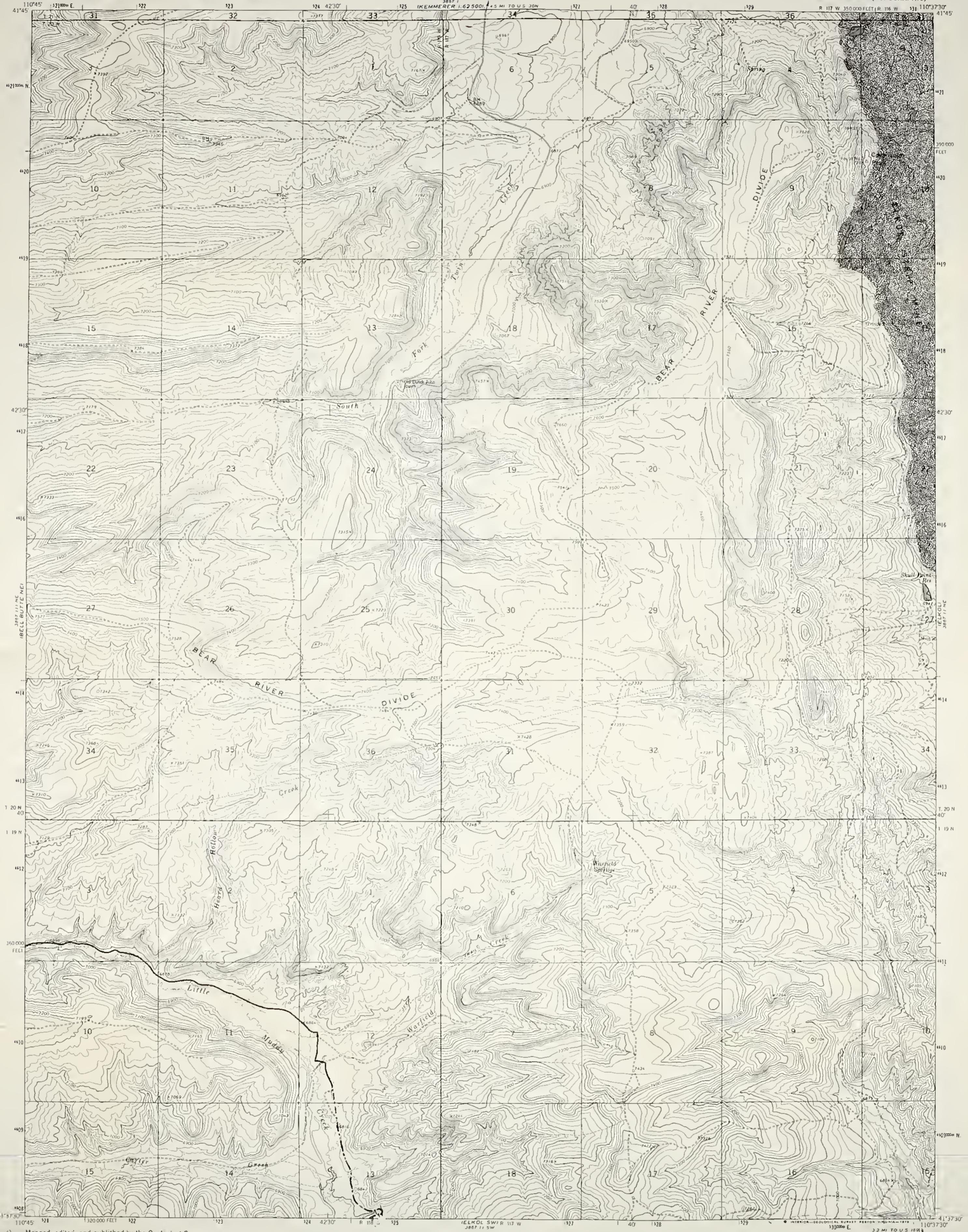
Polyconic projection, 1927 North American datum
10,000 foot grid base on Wyoming coordinate system, west zone
1000 meter Universal Transverse Mercator grid ticks
zone 12, shown in blue

Revisions shown in purple compiled from aerial photographs taken 1976 and other source data. This information not field checked. Map edited 1978





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Topography by photogrammetric methods from aero photographs taken 1961 Field checked 1962

Polyconic projection. 1927 North American datum
10,000-foot grid based on Wyoming coordinate system, west zone
1000-meter Universal Transverse Mercator grid ticks,
zone 12, shown in blue

Revisions shown in purple compiled from aerial photographs taken 1976 and other source data. This information not field checked. Map edited 1978

The diagram illustrates the conversion from UTM grid coordinates to magnetic north. It shows a vertical line labeled 'N' at the top, representing the North direction. A horizontal line extends to the right, representing the UTM grid direction. A diagonal line extends from the origin to the right, representing the direction of magnetic north. The angle between the grid line and the magnetic north line is labeled '151°'. The distance from the origin to the magnetic north line is labeled '276 MILS'. The UTM grid coordinates are labeled 'XN' and 'YM' at the top right of the grid line. The angle '011°' and distance '4 MILS' are also indicated, likely representing the grid coordinates relative to the magnetic north line.

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SCALE 1:24 000

0 1 MILE

1000 2000 3000 4000 5000 6000 7000 FEET

5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION

5-W11037 5/7 5

1962
PHOTOREVISED 1978
AMA, EAST, MARCH, 1978, 100-101

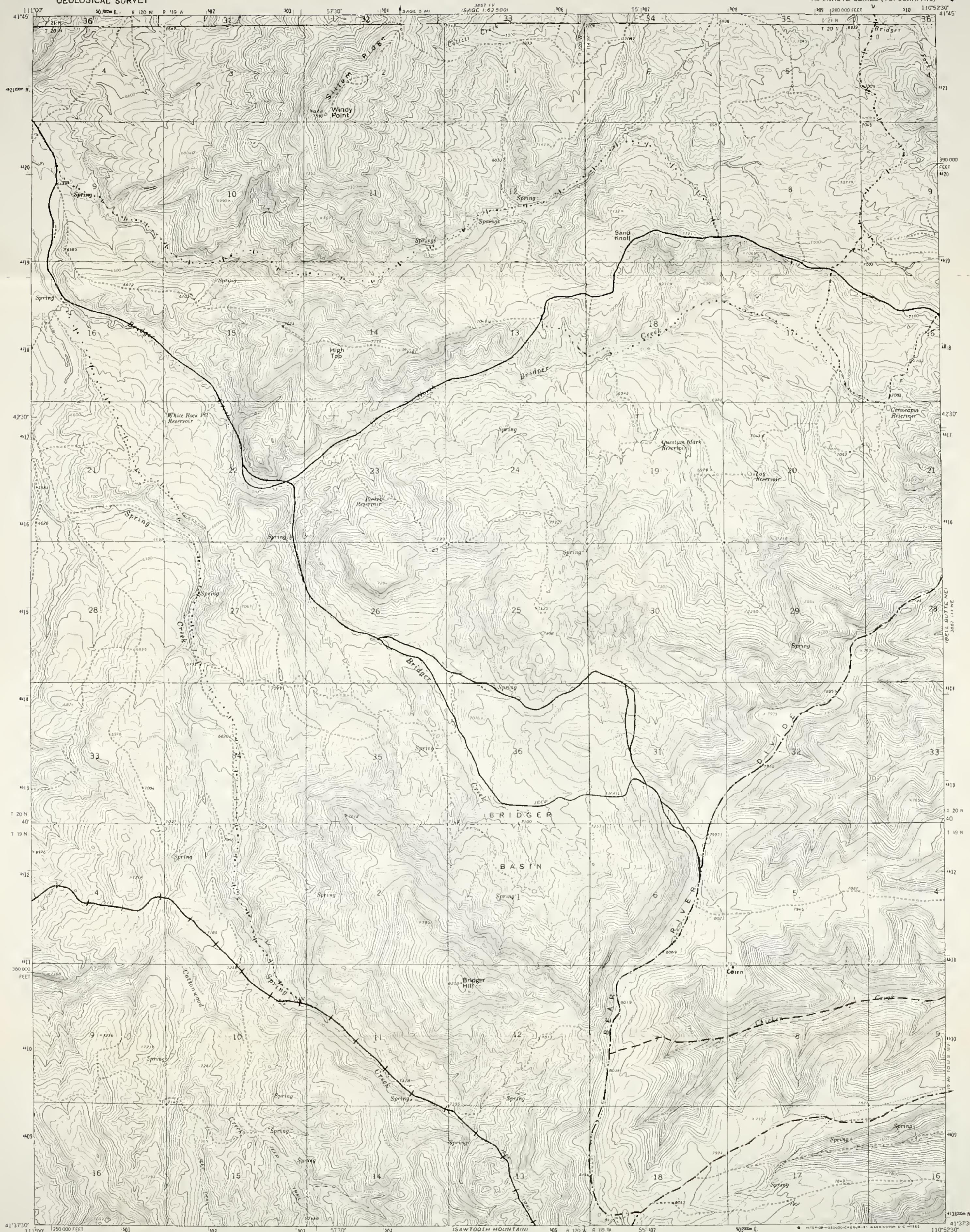
PHOTOREVISED 1978
OMA 3867 11 NW-SERIES Y874

WYOMING

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QUADRANGLE LOCATION

CUMBERLAND GAP
J86711, S.L.



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Topography by photogrammetric methods from aerial photographs taken 1961. Field checked 1962

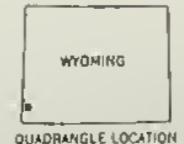
Polyconic projection. 1927 North American datum
10,000-foot grid based on Wyoming coordinate system, west zone
1000-meter Universal Transverse Mercator grid ticks,
zone 12, shown in blue

UTM GRID AND 1982 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
0°0'0" 36°45'0"
0'0" 293 MILS
0'0" 1 MIL

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SCALE 1:250,000
1000 0 1000 2000 3000 4000 5000 6000 2000 FEET
1 5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL



WINDY POINT, WYO.
N4137.5-W11052.5

1962

AMS 3867 1:250,000 NW-SERIES V874

BEAR BUTTE
3867 1:250,000

ROAD CLASSIFICATION
Unimproved dirt -----

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(Continued on reverse)

